THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES

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The Growth of Plants.

From the first movement of the germ in the seed the farmer commits to the soil, till the full maturity of the crop it produces, is one continuous series of chemical changes, combinations and effects; and all these changes and combinations are regulated and controlled by those physiological laws that were established "in the beginning." Animals and plants, from infancy to their full growth, are gradually made up of atomic accumulations and accretions. Day by day the processes of absorption, assimilation and enlargement go on; and a few months of favorable weather suffices to grow from a grain of Indian corn, a plant in all its parts a thousand fold heavier than the parent seed.

The atoms of which the plant has been built up, have always, each of them, existed since the creation, possessed of the properties then conferred on them. Those elementary substances that compose our farm products, in themselves are indestructible and unchangeable; yet they have been endowed with the quality of combining in an infinity of ways, and producing an endless variety of products, but upon the decomposition of these products, by the slow process of natural decay, or by the more active action of fire, they are resolved into their approximate or ultimate elements. But by the action of decay, or that of fire, these elements are not lost, for there is no such word as *lost* in the whole vocabulary of nature.

The living plant cannot change the character of the atoms presented to it—it flourishes or dies, according as they are food or poison; it can but select those proper for its growth; and the growth of the plant, whether luxuriant or stinted, (other conditions being equal,) will be according to the accumulation and availability in the soil of those atoms which form the substance of our cultivated plants. These atoms so abound in the fertile virgin soils of the West, and are so readily available to the plants, that it requires but little skill on the part of the husbandman to grow maximum crops. But on long cultivated soils, if originally fertile, there is usually a deficiency of many of those constituents so necessary for the production of large crops of corn, grain, and grasses. Here then, knowledge and skill become necessary on the part of the farmer, for the successful prosecution of his business. This skill in part, consists of that knowledge in agriculture which enables him to procure from the cheapest sources, the plant-food so necessary for his growing crops, for this is a matter of "dollars and cents" with him.

The great body of our farmers must depend principally upon the manure of their farm stock, and other manurial resources of the farm, for growing remunerative crops and keeping up the fertility of their land. In the proper management and application of farm manure, depends much of the success of profitable farming. The want of care and forethought on the part of many of our farmers in regard to this matter, is very much to be regretted. In some excursions we have made this winter, we have seen hundreds of loads of manure lying at the hovel windows, exposed to the washing of rains and melting snows, whereby much of the valuable soluble portions of the manure were carried off in the dark-colored rills of water that coursed from the yard; while there had been no provision made to save the liquid portion voided by the stock. These liquids hold in solution much of the real fertilizing matters of the manure, and they should not be suffered to run to waste. In the long run, we think farmers can generally expend money in the saving and composting their manures, much more profitably than in the purchase of guano or superphosphates. There may be some exceptions. But the use of these concentrated manures, if of prime quality, does not add anything to the permanent improvement of the soil, but usually tends to hasten its exhaustion of many of the naturally fertile substances it contained.

The plowing in of clover, or manure composted with two or three times its bulk of swamp muck, or leaves and mold from the woods, will give immediate returns, and at the same time add lasting fertility to the land. We are happy to say however, in our excursions above alluded to, that we in numerous instances, witnessed among farmers great improvements in the management of the farm manure, over that of fifteen or twenty years ago. Scores of them have barn-cellars, in which the manure of their stock is stored and protected from waste.

Reclaiming Swamps—Underdraining.

Unproductive Swamp Lands and their Uses—Their Reclamation Profitable—An Example of Underdraining—Character of the Swamp—Open Drains Insufficient—Surprising Effect of Thorough-Draining—Satisfactory Results—Cost, $26 per acre—Conclusions to Open and Under Drains.

Very many farms are disfigured by tracts of marsh or swamp land, of various extent and characteristics, but alike in being nearly valueless in their present unimproved condition, for all the purposes of agriculture. They may afford a covert for birds, or a haunt for reptiles, and perhaps some wild berries and coarse grasses; but their growth, unlike that of the forest, deteriorates rather than increases in value with each succeeding year. Yet when cleared and drained, these wastes and eye-sores of the provident husbandman, become the most easily cultivated and productive part of the farm. The reclamation may be expensive, yet generally a very few years will repay the outlay, and bring in an additional handsome profit.

In our opening paper on this subject, (Co. Gent., p. 185,) we quoted an example in which eighteen acres were reclaimed by open drains, at an expense of some $50. We propose now to refer to the statement of another farmer, whose experience was also called out by the offer of premiums by our State Ag. Society. In this case nine acres were thoroughly underdrained with tile, at a cost nearly five times that of our former instance, yet we doubt not that the experiment of the latter is as entirely, and will be as permanently, satisfactory to the owner as that of the former can be.

At the risk of repeating facts already known to a portion of our readers, (yet, in our opinion, worthy of being restated in this connection,) we condense from the *N Y. Ag. Transactions* for 1855, the statement of Wm. Johnson, near Geneva, to whom a premium of $10 was awarded for reclaiming swamp lands. The lot, when it came into his possession, was overgrown with small trees, bushes, willows, bog-grass, &c., according to the surface; being a rough uneven piece, full of holes, in which water stood the greater part of the year. The soil was vegetable mold, interspersed with clay knolls; the subsoil a tenacious clay, and it received the water running from a large tract of surrounding lands. The first work done upon it, was the season after its purchase, when the trees and brush were cut off and burned, and an open ditch run through the lowest part, which carried off the greater part of the *surface* water and improved it materially, but still left it too wet for successful tillage.

In 1855, Mr. J. concluded to finish the work by thoroughly underdraining his field. He cut a main ditch thirty inches deep through the lowest part of the swamp, putting six-inch tile in the same, (after finishing side-drains,) the whole expense being 58½ cents per rod, or about $25 for forty-two rods. Into this, cross drains were led at about two rods apart, and at nearly right angles with the main drain, 120 rods being laid with two-inch tile, and 510 rods with one and a half inch tile; the total cost of the latter drains being 32½ cents per rod, that of the former, four cents more. In the main drain the tile were laid upon boards, to secure them from sinking unevenly into the soil, or from being filled up from its pressure from beneath—a precaution often required in case of large-sized horse-shoe tile, on any but hardpan gravelly soils.

"Now," to quote the statement, "for the result. As the drains progressed, the water began to disappear from the surface, and within about one week after the drains were dug, the water *entirely* disappeared from the *lowest* places. The effect was striking to every one who saw it; that portion drained being entirely dry, while the other portion immediately joining was literally soaked with water, and as fast as the drains progressed the water would rapidly disappear. The experiment has proved *entirely* satisfactory." It is now one of the driest lots on the farm; fit to work at any time, and producing abundantly. The expense of draining was about $26 per acre.

We have little hesitation from our own experience, in advising open drains *at first*, in all large marshes where there is much depth of muck, not only because we believe them amply sufficient to carry off the surface water and allow of the settling of the boggy soil, but because some time must elapse after the surface water is removed, before underdrains can be so laid as to be permanently efficient. When, however, the miry, boggy marsh gains a settled and grassy surface, and yet that grass is coarse and innutritious because of water in the soil, *then* it will be wisdom to underdrain thoroughly, and we know for the farmer, with such land, of no better or more paying enterprise in which he can embark.

Agricultural Botany.

AMERICAN WEEDS AND USEFUL PLANTS: being a second and illustrated edition of Agricultural Botany. By WILLIAM DARLINGTON, M. D. Revised, with addition, by GEORGE THURBER, Prof. of Botany and Mat. Med. in N. Y. College of Pharmacy. New-York, A. O. Moore & Co.

The first edition of Dr. DARLINGTON'S Agricultural Botany has been our most valuable book of reference in a compact form, on all matters relating to the botany of farming; the eminent scientific acquirements of its author imparting entire confidence as to its accuracy and ability. In some particulars, the present edition is a great improvement; there are many important additions; the engravings of plants which are numerous, are remarkable for their life-like appearance as well as rigorous accuracy, and indeed we do not now recollect any American work on this science where the figures are so perfect as many of these.

We do not think the study of botany will enable the farmer to become "rich" without the best practical knowledge, nor even generally to raise larger crops; but more knowledge on this subject than many possess would not only prove a great convenience, in identifying new or unknown weeds, but in some instances would prevent large pecuniary loss, by leading to the extirpation of weeds in new localities, before they have attained an extensive foothold. The distinctive characters of the grasses and other agricultural plants will enable the farmer by a little attention to this science, to avoid a great deal of embarrassment and confusion from the misapplication of names.

There are many interesting notes subjoined to the descriptions, of which we copy a single specimen under the head of *Bromus secalinus*, or chess:

Observations. This foreigner is a well-known pest among our crops of Wheat and Rye,—and occasionally appears in the same fields, for a year or two, after the grain crop; but being an annual, it is soon choked out by the perennial grasses,—and the fallen seeds remain, like myriads of others, until the ground is again broken up, or put in a favorable state for their development. The

best preventive of this and all similar evils, in the grain-field, is to sow none but good clean seed.

Among the curious vulgar errors which yet infest the minds of credulous and careless observers of natural phenomena, may be mentioned the firm belief of many of our farmers (some of them, too, good practical farmers,) that this troublesome grass is nothing more than an accidental variety, or casual form, of degenerate Wheat, produced by some untoward condition of the soil, or unpropitious season, or some organic injury:—though it must be admitted, I think, by the most inveterate defender of that faith, that in undergoing the metamorphosis, the plant is decidedly uniform in its vagaries, in always assuming the exact structure and character of Bromus!

A similar hallucination has long prevailed among the peasantry of Europe, in relation to this supposed change of character in the Grasses. But, in the Old World, they were even more extravagant than with us; for they believed that Wheat underwent sundry transmutations,—first changing to Rye—then to Barley—then to Bromus,—and finally from Bromus to Oats! I believe the most credulous of our countrymen have not been able, as yet, to come up with their transatlantic brethren, in this matter. This grass has been cultivated within a few years as Willard's Bromus, and the seed sold at a high price. The farmers found that they not only did not get a valuable grass, but were really propagating a worthless and pernicious weed, being thus doubly cheated.

This volume is a neatly printed duodecimo of about 450 pages, and with nearly 300 figures, and is sent by the publisher, A. O. Moore & Co., of New-York, by mail for $1.50.

Manuring in the Hill for Corn.

This question, which was referred to last week, we find there are various opinions on. *Our opinion is*, that we cannot adopt either mode in all cases. In some soils one mode would be preferable, in other soils the other, while in some soils we might apply part of the manure in the hill, and the remainder broadcast. For example, a few miles east us there are a few towns situated upon a high ridge of land; the soil is very cold and wet, which makes the season late before they can plant; they apply all their manure in the hill; whereas, if they plowed it under or harrowed it in, they would get little or no corn. My rule has been, upon our hill land, where the soil is a little heavier, to plow in a part, and put a portion in the hill; while upon our warm plain land, our different kinds of manure are drawn out and worked over two or three times before it is plowed; in this way it becomes light and warm; after the ground is plowed, it is then carted out upon the furrow and harrowed in. J. B. B. *New Braintree, Mass.*

Success with a Small Farm at the West.

We have been kindly furnished, at our request, with a statement of some of the farming operations of A. and O. Barnard of Bloomington, Illinois, who both occupy a farm of only *fifty-one acres*, and which as they state, proves "altogether sufficient" for the support of their two families.

They practice thorough and enriching cultivation—plow deep and manure well. They use the double Michigan plow, doing the work in the best manner—and for pulverizing employ a 30-toothed harrow and joint-roller. Manure is spread for corn while the plowing is going on. Corn is planted 3 feet 8 inches each way; plowed or cultivated four times; at the third all the plants are thinned out to three stalks to a hill—the ground is left as level as possible, and the hoe is but little needed. The crop of 1857 on five acres, yielded 511 bushels and 17 lbs. of corn—the whole crop was 2,100 bushels. A quarter acre of potatoes the same year gave 73 bushels 45 lbs. In 1858, the corn averaged 87 bushels 5 lbs.—the planting being late, from the wetness of the weather. In 1857, four acres of spring wheat yielded 106 bushels; in 1858, the crop was nearly a failure—oats nearly destroyed by the army worm.

The cattle are not, as is too often the case, exposed to all winds, but there is a high board fence around the barn-yard, and they are always housed at night.

A large share of their profits consists in buying cattle and other animals, feeding and improving them, and then selling. The following is their statement for cattle and pigs a year ago:

Jan. 28, 1858, and subsequently, bought cattle to the amount of,		$557.00
Six of our own raising worth before feeding,		205.00
Hogs bought, cost,		251.90
Hired labor,		120.00
		$1,133.90
The cattle were sold by May 7, for	$1,047.50	
Hogs, Sept. and Dec., for	431.57	
Ten pigs for breeding stock, about $10 each,	80.50	
One sow on hand, worth	15.00	
Six head cattle on hand, worth	100.00	
		1,674.57
Profits on animals,		$540 67

This does not include the profits on horses, which have not always been fed on the farm—nor the crops sold. Most of the grain was consumed in feeding them.

The owners have been but a short time on this small farm, and do not think its "strength and ability" are yet developed. They have young and thriving orchards, which may yet increase the profits of the land. In addition to the sales, is their own living, pork, bread and potatoes. We regret that we are unable to furnish a statement of their entire products, but hope to do so another year.

How to Grow Early Potatoes.

Messrs. Editors—I saw it recommended, not long since, in the Country Gentleman, to prepare hot-beds to sprout or start potatoes, in order to get them earlier, and doubtless it would be the best mode for large farmers where a great quantity of them are needed for such uses; but I would say to those who only require a few, to get them early for their own table, that if they will place them in some room where there is a fire kept daily, they will not only sprout quicker than in a hot-bed, but equally well, and sprouts grown in this way will bear the air and sun even if large enough to transplant, and continue to grow after being transplanted, while those grown in the cellar, or in dark and damp places, generally die and start anew after being planted. I sprouted this way, and planted some last season, on some of which the sprouts were six inches in length. I covered all but one row in the usual way, and this one I transplanted, leaving the end of the sprouts some two inches exposed to sun and air. This row was about a week more forward at digging time than the others, though at the first hoeing there was no perceptible difference in the size or forwardness of the vines. I generally hang a basket containing from half a bushel to three pecks of such as I wish for early purposes, in my kitchen, near the stove, the first part of April, and by the time it is prudent to plant or transplant them, they are sufficiently started for the purpose. They may be cut before sprouting or afterwards, or not at all, according to the fancy or method of seeding chosen. For my own part, I consider four eyes sufficient for a hill, and would not care to have more than this were they to be had gratis. E. Allin. *Pomfret, Conn.*

An Experience in Wintering Sheep and Other Stock.

A correspondent who says he wishes to add his testimony in favor of a practice, which though often recommended in THE CULTIVATOR, has been neglected too much by others as well as himself, writes us as follows:

"THE CULTIVATOR has been 'the man of my counsel' for a good many years, and I have every year made some change in the modes of management in consequence of the hints, suggestions, facts, and recommendations which I have found in its columns. These changes have uniformly, so far as my memory serves me, turned out to be improvements,—a fact which you may easily believe to be no baseless flattery, when I inform you that I was brought up on a farm where such a thing as departure from the established routine would have been considered a proof of great folly, or of something worse. Doing as their fathers had done, was also the rule followed on all the farms around. You can readily see then, that when I began for myself, and read THE CULTIVATOR in order to learn how the best farmers in the country managed their business, I must have found a great many ways of managing, in the form of experiences or recommendations, which differed from those to which I had been accustomed. The changes I have made in consequence of these hints and facts, have been improvements, profitable often, and always satisfactory.

"There is one change which I now regret that I had not made sooner than I have, as I would thus have had fewer deaths among my flock of sheep, more milk from my cows, and my working stock in better condition for spring's work. I had seen it stated on several occasions —probably more than once in every volume—that it was of great importance to have sheep and other stock, come to the yard or the stables on the approach of winter in *good condition*, and that it was bad management and poor economy to allow cows, sheep, or any other stock in fact, to depend wholly on the dry, frozen pastures as long as snow left them accessible. I had read more than once that it was almost impossible to get an animal that is poor at the beginning of winter, into any better condition while that season lasted. But though all these things seemed reasonable and worthy of being attended to in practice, like some other of my neighbors, readers too of the same facts and admonitions, I neglected to conform my practice to what my judgment approved. This last autumn however, I resolved to have my stock in the very best condition before winter should set in, and by feeding cows and sheep a little before they were let out into the field in the mornings, and a little after coming home at nights, and by other similar arrangements, I managed to have them all fat or in fair condition when snow came. And though the fear of not having enough hay to carry my whole stock through the winter, has made us feed rather scantily, they are all in *first rate* condition now.

"I have been induced to give you and your readers these details, in the hope that an *additional* testimony in favor of getting stock in good condition before winter, may persuade some to try it."

Apple Slump.

Place stewed apples in a round pie pan, an inch thick—make a crust of flour, sour milk, a piece of lard the size of a walnut, one small tea spoonful of soda—roll out the crust half an inch thick, place it on the apples and steam it an hour—then turn it out on a plate, bottom side up, and serve up with sweetened cream or butter. Berries may be used in the place of apples. E. J.

Culture of the Onion.

MESSRS. EDITORS—In a late number of the Co. Gent. I read an article on raising onions, which contained what might by some be called bad advice. It said the drills should be from 15 to 18 inches apart. This distance will do for those with whom a large crop on a given area is no consideration; but is altogether too great a space for those who must make every acre yield its utmost. Drills 10 inches apart, is a very good distance, and some sow them only 8 inches asunder. Thus your readers will see that other things being equal, the latter distance will give twice as many bushels to the acre as the former; and the crop in the latter stages of its growth will spread itself over the entire space.

Hoes made especially for this crop, are preferable to others. Any handy blacksmith can make one, using an old file for the blade, which should be kept quite sharp while in use. The cost of a hoe thus made should not exceed 40 cents; the handle can be put in by any one who can use a jack-knife.

Some drill in their seed, which is preferable to sowing by hand, without previous marking. I prefer to mark out the rows before drilling, and for that purpose use a drill-rake made as follows: I took a piece of 2 by 4 pine scantling, 4 feet 6 inches in length, spaced it off for the tooth holes to come 10 inches from center to center—each end hole to be 2 inches from the end of the stick. Put on a handle "to your taste," and you have a tool that will be very useful in your garden as well as onion patch.

Onions should be got in as early as possible in the spring. In harvesting, if not sold at once, they should be kept dry, as moisture will soon rot them. If kept until the next spring, draw them to market as soon as possible, as delays will prove dangerous. J. EVARTS WHITTLESEY. *Durant, Cedar Co., Iowa.*

Management and Profit of Bees.

In the farm report of Mr. W. D. KELLY, published in the report of the Ohio State Board of Agriculture for 1857, we find the following:

I have 57 families of bees. I find it to be profitable to raise bees for honey. I have been engaged in bees for 25 years. I find that all the patent bee hives that I have tried have failed. I have tried many, and they have all failed to be what they were represented to be. The bee miller will go where the bee can go, and if the bees are not strong enough to protect all the comb, the miller will destroy them, or deposit their eggs in the comb, and hatch and destroy the whole hive. This is often done when bees swarm too often, regardless of the quantity of honey they may have. If the bees are strong, they keep out the worms themselves.

All the patent work that I have tried has only proved a harbor for the worms, and at the same time been very expensive. All bee-hives should be so arranged that the bees could have the advantage of driving the miller or worm out by the inclined plane. I have tried an experiment with 19 families in one building, separated of course from each other. Being somewhat acquainted with their nature, I manage the cells so that they make the fine honey in boxes or drawers, that hold 16 lbs.; the building is 12 ft. square, cost about $200. I can take 70 or perhaps 80 boxes or drawers per year—say 70, at 16 lbs. per box; 1,142 lbs., sold at 25 cts. per lb., $280, without destroying the bees. I have one family that I have robbed every year for 14 years, and had its increase. I find to take their honey every year is an advantage to the bees, as well as to the owner, if properly managed.

A Good Cheap Coffee.

Take coffee and peas of equal quantities; roast them well, separately, taking care not to burn them; grind them together and serve up according to taste. By the addition of the peas, the coffee clears itself, and settles perfectly without any other addition, and moreover makes a much cheaper and more wholesome beverage. I think the large, rich kinds of peas, such as the Blue Imperial, are preferable, which can be raised very easily by any good, frugal housewife, in her garden. Sow about the 10th of June and they will be free from bugs. MARY.

Indian Bread without Yeast.

Three tea cupsful of Indian meal, two of rye or wheat flour, one-fourth of a tea cupfull of molasses, one tea spoonful of salt, and one and a half tea spoonfuls of saleratus. Mix in one quart of sour milk. Bake two hours. The family pronounce this excellent, especially when first made. AMANDA.

A Good Farm.

What are the requisites for a good farm—such an one as would take and deserve a premium, and prove an example and an encouragement to farmers generally? Let us offer a few thoughts on this subject—recalling, if not suggesting, valuable hints to the reader. A farm should furnish a pleasant and comfortable home, and a healthful and remunerative business, and a good one readily does this for the owner. It should possess

I. A good soil—either naturally, or made so by cultivation and manuring—adapted to the production of the different crops usually grown in that locality, and conveniently situated for marketing them profitably. It should have (2) a wood-lot for supplying fuel for domestic use, the fencing and a greater part of the building lumber of the farm, and there should be (3) water convenient to the dwelling-house, barns, and other buildings, as well as for the pastures. These may be either naturally or artificially supplied, by streams and springs, or wells and cisterns, as the locality will allow.

II. A good farm is well fenced—divided into suitable and convenient lots by substantial enclosures, either of rails, stone, boards, or other permanent material, conformable to its size, value, and situation. It is (2) properly tilled—every crop being sowed on properly prepared ground, and its after cultivation thoroughly attended to. (3.) The production of weeds is assiduously prevented—the fields, fences and road-sides are kept as clear as possible of "the enemy"

III. A good farm is provided with barns and stables, permanently and neatly built, and conveniently placed and arranged, and of sufficient size to contain the produce of the farm, and to shelter the stock usually kept upon it. (2.) Cellars for storing roots, for the manufacture of manure, &c., are placed under these buildings, and (3) convenient yards attached, so arranged as to prevent waste of fodder and drainage of manure. These yards are well sheltered from the winds, and are supplied with water; the whole establishment forming a comfortable winter residence for the domestic animals of the farmer—such as he may rest content in the knowledge that every want is supplied, and every needless suffering prevented, under his jurisdiction.

(4.) A good farm has various out-buildings to facilitate the different operations in its management; among these may here be named a wagon and tool-house for storing the implements of the farm at all times when not in use; a work-shop supplied with proper tools, a granary and corn-house, a convenient piggery, a poultry-house, etc., all conveniently arranged and situated, and neatly and permanently erected.

IV. A good farm has a good dwelling-house, judiciously arranged for the comfort and convenience of the women; neatly built and kept in perfect repair—with a good cellar, a well and cistern, a wood-house, ash-house, smoke-house, ice-house and closets, near at hand; and these and all other buildings, well painted and secured from decay. It has (2) a neatly fenced front yard, enclosing (3) a grassy lawn with ornamental trees, plants and flowers—the whole appearance of the house and grounds indicating the abode of taste, neatness and comfort.

V. A good farm has a good orchard, containing the best varieties of market apples, and other fruits; also (2) a kitchen garden—where are raised in their perfection, all the culinary fruits and vegetables usually grown in such places. (3.) A fruit garden for cherries, plums, pears, &c., and also grapes, raspberries, strawberries, currants, and in short all the fruits which may be grown in the open air, is provided and given due culture and attention.

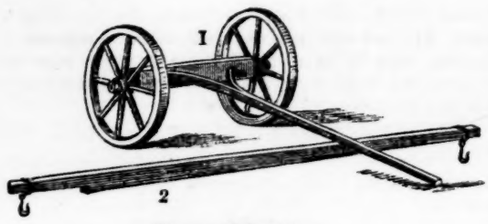
Such are some of the requisites of a good farm. We shall present hereafter some of the characteristics of an Average Farm, a subject equally interesting and instructive.

Growth and Consumption of Wheat in New-England.

At a late agricultural meeting at Keene, Cheshire Co., N. H., one of the subjects discussed was the question, whether the farmer cannot raise wheat and supply himself with flour, at less cost than he can raise other articles, and after subjecting himself to the trouble of marketing these, and to the cost of paying three or four profits to those through whose hands the wheat and flour have passed, purchase what of the latter he may need for his family supply. From the tenor of the confessions and remarks made, there seems to have been a pretty general impression that the farmers of that county, as well as of other portions of New-England, were working to disadvantage in neglecting to raise wheat, while at the same time they purchased so largely of flour. As an illustration of the amount of flour purchased in the towns, it was stated that in a single town in that State, in which there was no manufacturing establishment, but where nearly all the people were engaged in farming, and the population was only 1,500, flour was annually sold to the extent of about $5,000, or of $3.33 for each individual. This estimate, though at first sight it may appear rather large, will not appear at all exaggerated when it is considered that in several districts of the country, where wheat is almost exclusively used for bread, it has been found that the consumption averages about five bushels, or a barrel of flour, for each person, young and old, per annum; and that in some families, the rate of consumption has been found as much as seven or eight bushels for each mouth in the course of a year—this larger consumption having been caused, most probably, either by the want of a garden and its manifold contributions to the table, or by some other circumstance leading to an almost exclusive dependence on fine flour.

If, as seemed to be thought by some of the speakers, flour is consumed throughout New-England at about the same proportion for each person as in the one town referred to, it cannot be otherwise than that the question stated in our opening sentence is one deserving of a full consideration, a free discussion, and an early decision. Years ago the West produced wheat so cheaply and so abundantly, as to discourage the farmers in New-England in their attempts to supply the home demand, and to reduce the price so low that their wheat crops were scarcely remunerative; but of late, the ravages of the wheat-midge, the exhausted condition of lands from continual taking from them and making no returns, and other circumstances, have placed East and West more upon a par, and made it less difficult for the former to compete with the latter in the raising of wheat crops.

HEREFORD CATTLE.—We learn that JOHN MERRYMAN, Esq., Hayfields, Md., has lately made very considerable additions to his herd of Herefords, by purchase from Wm. H. Sotham and Fred. Pumpelly of this State, and also from the Massachusetts Society for the Promotion of Agriculture.



Stump Machine.

MESSRS. EDITORS—Seeing the call of Mr. HULME and others for a more extended description of my Stump Machine, though I can use an axe or shovel better than pen or pencil, yet I will endeavor to enlighten them on the subject. One reason why my former communication was not understood, probably is that the ox-carts of Pennsylvania may be differently made from those of Maine. Here they are made with two very large and strong wheels, with a tongue that goes into the axle, about eleven to sixteen feet in length, according to the work you are doing. Now, if we say fifteen feet, by looking at the figure (1,) it will be seen that about four feet is in two parts. A stick or lever, (fig. 2,) 4 or 5 feet longer than the tongue is so cut out on one end as to fit where it crosses the axle, when laid upon the top of the tongue. This lever should be, say seven inches thick in the thickest place; it may taper down to one and a half or two inches at the long end, while the short one which projects beyond the axle, should be, say four inches thick—the breadth of the lever being uniform throughout, and the same as the breadth of the tongue itself—the two being attached together by two straps of iron slipped over them, which can be easily procured from the blacksmith as I before suggested. The lever is provided with a strap of iron and hook at each end. In operation we place the lever (2) upon the top of the tongue (in fig 1.) fastening it snug with the iron straps, and it is a good plan also to pass a chain around the axle and lever where they cross, to resist side strains. The long end is raised in the air, and there will be about three feet perpendicular height, to which you can lift a stump or rock with the shorter end. The axle must be a strong one. A chain having been fastened around the root of the stump to be pulled, is then hooked to the shorter end of the lever, to the longer arm of which elevated in the air, a tackle or "tackle and pull," as it is sometimes called, is hooked, and the lower block of the tackle being secured to another stump, or some similarly stationary object, then to pull down the longer arm exerts an immensely multiplied power in pulling up the stump, and one which it cannot well resist. I said in my other communication that if the long arm of the lever is eighteen feet, the short arm two feet, and the tackle has four ropes, one yoke of oxen pulling on the rope would exert thirty-six times their own power in extracting the stump, and by varying the length of the lever, &c., the power could be still further multiplied. H.

Starting Flower Seeds.

Now is the time for every one who can have a hot-bed to put in flower seeds in order to have early flowers. In our climate it is best, if you do not wish to be disappointed, to wait until the 15th of May at least before planting seeds, as there is much risk of the seeds rotting if planted previously. In a gentle hot-bed seeds may be planted the first of April in pots, and as soon as they are half an inch high, put about three plants into a three inch pot and let them grow until about the 15th of May, when they may be transplanted into the borders where they are to remain. By pursuing this course you will gain at least a month in the flowering of your plants. G. B. H.

Culture of the Turnip.

MESSRS. EDITORS—A few weeks since, I noticed an inquiry in the Country Gentleman, from one of your subscribers, in relation to raising roots to feed his stock with, in the winter season. There is no doubt in my mind, about the benefit and profit of raising root crops to feed all kinds of farm stock with, during that part of the year in which they are fed on dry fodder. After an experience of more than a dozen years, I am satisfied that what roots I raise and feed to my stock, pay me a larger profit than any other crop I have ever raised. I have raised the carrot, sugar beet, mangold wurtzel, and various kinds of turnip, and I have come to the conclusion that the turnip is the most profitable root crop for me to raise, for several reasons. One is, I can raise a much larger quantity of turnips on the same amount of land, than of any other kind of roots that I have raised—another reason is, it is much less work to cultivate and harvest a crop of turnips, than other root crops, and there is sufficient time, after the rest of my spring work is done, to put in the crop, and have it mature, as it can remain in the field until all my other crops are harvested.

To raise a good crop of turnips, it is necessary to have a deep, dry, and mellow soil, and on most kinds of land there is no danger of having it too well manured, for the turnip is a gross feeder, and when a sufficient quantity of food is given to it, it will grow luxuriantly, and yield bountifully, and indeed, the quantity and quality of the crop depends on amount of manure applied to the land. My method of raising my crop is as follows: When I get ready to put in the crop, a sufficient amount of manure is spread on the land, and plowed in, and the land is then thoroughly harrowed with a light harrow. I then take my horse and horse-rake, (the rake is one of the coil spring wire tooth rakes,) and rake the surface of the land over until it is smooth; if the land is in a suitable condition to cultivate, raking it over twice will be enough. After this is done, I take my seed sower, which is one of Nourse & Mason's manufacture, and sow the seed in rows, two feet apart. As soon as the second leaf of the plant gets well out, I hoe and thin them where the plants stand too thick. At the second hoeing, which is generally ten or fifteen days from the first, the plants are thinned out to one foot apart, which is as near as they should be allowed to stand, and where the land is very rich, eighteen inches will be near enough. At these distances the tops of the root will entirely cover the ground. I usually hoe the crop three times. After the seed is gown, I hoe the land as soon and as often as any weeds make their appearance, which rule I intend to follow with all crops that I cultivate. I let my turnips remain in the ground as long as I can, and get them harvested before the ground freezes, though it does not injure a turnip if it is frozen some in the ground. In several instances I have known the surface of the ground to freeze quite hard before my crop was all harvested, yet the turnips were not injured at all. To pull my turnips I use an instrument made of an old manure fork, the prongs cut off to five inches in length, the shank bent and fitted to handle like a hoe, and used in the same way, that is, pulling the root out of the ground with it. I let my calves into my turnip field a short time before I wish to harvest the crop, and let them eat off most of the tops; this saves considerable labor in trimming them, and the tops make fine feed for the calves. With my method of managing the crop, it is less work to put in, cultivate, and harvest a crop of turnips, than either a crop of potatoes or corn. I usually get from 600 to 1000 bushels per acre. The crop thus far has been a sure one with me, having been exempt from the ravages of insects and diseases. It will endure the drouth of summer or the frost of autumn, beyond any crop I raise. The

kind of turnip I raise is similar to the rock turnip raised in Connecticut, or the Sweet German turnip. I have raised them all, and consider the kind which I raise equal in every respect to either of the others. Last year I raised some of Skirving's Improved Swede and River's Swedish Stubble turnips. Both kinds yielded about the same as my sweet turnip. Of the two kinds I should prefer the Swedish Stubble to Skirving's, as the latter kind runs to neck a good deal, but the former kind has none, neither has it as much root as Skirving's, yet both kinds are valuable for winter feeding, as they keep well, and cattle and sheep eat them readily, and all of the kinds that I have mentioned, when boiled or steamed, with potatoes, apples or pumpkins make good feed for hogs, and after they get used to eating them, they will do well on boiled turnips alone. But as this communication is getting rather lengthy I will postpone to another time my experience in raising and feeding root crops to farm stock. C. T. ALVORD. *Wilmington, Vt.*

Cisterns for Stables.

Some of your subscribers were inquiring about building cisterns. A few years ago I built a new stable, 36 feet long, 20 feet wide, with a 12 foot shed along one side; I got tin spouts put on both sides, and joined together on the center of the south end. Here we sunk a hole 11 feet deep, 10 feet in diameter, and intended to cement it on the clay to about three feet of the top, from which turn an arch of brick, but I met a person who had one built in this way who told me that the roots of the trees pushed the cement off the clay, and he advised me strongly to wall it up with stone and lime mortar. I had heard of other cisterns that were plastered on the clay, "caving" in, and I hauled as many thin limestone from the creek, say 2 to 3 inches thick, (thin stone do best,) as walled it up to within 2½ feet of the top of the ground. The wall is nine inches wide at the bottom, and reduced to six inches at the top. The plasterer turned a very flat arch on this (with brick) four inches wide, by working round and round like a screw, and inclining the brick on their edge a little more every round, till they were nearly on their edge, and till the hole was small enough to hold the metal frame, which was then set in. We filled about the brick with clay, and rammed and tramped it; over the clay we spread gravel. The arch rises about a foot above the level of the ground, and we formed a mound over the cistern so that any water that is spilled runs off. I think a brick arch is far better than wood, as the wooden covering must be level, and any water that falls on it may drip through into the cistern and the wood may rot.

I told the mason that I thought a four inch arch too weak, and that he ought to make it the length of the brick, nine inches. He replied, "the four inch would carry one corner of the barn, and that it would last as long as the Pyramid of Egypt." I find this cistern a great labor-saving article, and one of the most useful and convenient things about my place. The creek is only two hundred yards from the stable, but sometimes a horse comes in too warm; we let him cool, and then give him a bucket of water out of the cistern, and if the hay is dusty we have water convenient to sprinkle it. It is not as big as intended by the thickness of the wall, but last summer we watered four horses half the time out of it, and it never ran out.

Cost, mason building stone wall, three days, $1 50—plasterer, turning arch, plastering first with mortar to fill the unevenness of the stone, plastering with the cement and replastering the old cistern $5—cement $3 50—lime $1 50—digging $5—chain pump and box $5 50—total, $25 00. Tin spouting $19 75—say $45 in all. The stable cost $176 75. It has 17 feet posts, which give a good hay-loft above. It is a double stable with four stalls in each end 15 feet long, and a feeding place in the middle 6 feet wide; two windows in each end, and a trap door to throw down the hay in the feeding place, which acts as a ventilator to carry off the horses' breath. I ought to have a cupalo on the center of the roof. J. J. CRAIG. *N. Madison, Ind.*

Culture of the Grape.

EDS. CO. GENT.—The following article on grape culture, was read before the FARMER'S CLUB in this village, on Saturday, Jan. 29, 1859, by Mr. WM. P. GILES. If you deem it worthy of a place in your valuable journal, I shall consider myself well paid in sending you a copy. W. M. BEAUCHAMP, Secretary to the Farmer's Club. *Skeneateles, Feb. 1st*, 1859.

Gentlemen of the Skeneateles Farmer's Club: Of the many different plans adopted to increase the productiveness of land, and thereby render its cultivation more profitable, that of grape-growing, for the last few years, has claimed a large share of attention; not only has the amateur fruit grower and gardener so done, but men of skill and energy, in different parts of the country, are devoting time and capital to the production of grapes as a market fruit. I propose at this time to give a short account of one of the latter class and his success.

H. H. FARLEY of Union Springs, Cayuga Co., a dentist by profession, came in possession of a piece of land lying on a point that jutted out into Cayuga lake, a portion of which he immediately proceeded to fit for a vineyard in 1854. In the spring of 1855, he planted his vines, and at the same time raised a crop of potatoes. The crop proved an excellent one, and paid all expenses for the cultivation that year. In 1856, he had his posts set for trellises, and began training his vines on them, but allowed no fruit to grow. In 1857, the vines having done extremely well, as the sets for fruit were very numerous, he allowed a portion to remain and mature, cutting the rest off at the time of summer pruning. He obtained about three tons of grapes, notwithstanding the wet, unfavorable weather; they ripened well and in good season, and sold for about $1,000.

On the 11th of October, 1858, I visited his vineyard. They were then gathering the crop of perfectly ripened fruit, and though he estimated the crop only at about one-third what it might be when the vines are older, it was hard to believe so loaded were the vines with large clusters of luscious fruit.

The picking and packing which was then going on, was all done with the greatest care. So great was the perfection of cultivation, that not a weed was to be seen. In answer to my inquiries concerning the soil and manner of preparing it, manures, cost of cultivation, amount of crop, profits, &c., he kindly furnished me the following statement:

"1. The soil of my vineyard is varied, or more properly spotted, being in part sandy and gravelly loam, underlaid with limestone; while another portion is clay with a subsoil of stiff clay; to these may be added patches of black muck with a clay subsoil. With the preparation I have given my grounds, I see but little difference in the health and growth of vines on these varid soils. I am of the opinion that any soil that will produce good corn, is well adapted to the cultivation of the vine.

2. It will pay to underdrain all soils that are not absolutely light and sandy. I have underdrained nearly every rod of ground that I have planted. I put in tile drains about three feet deep and from one to two rods apart.

3. Previous to planting, I applied to most of my land, about fifty loads per acre of compost, made of stable manure and swamp muck, four or five of the latter to one of the former, and upon the patches of

heavy clay about one hundred loads of coarse sand per acre in addition to the compost. Since planting, I have put on an annual dressing of forty or fifty loads per acre of muck as a top-dressing.

4. I planted mostly two and three years old roots, and gathered a little fruit the third year after planting, though a vineyard should not be brought into full bearing until the vines are eight years old.

5. The past year I had in bearing about six acres, the age of the vines varying from five to seven years.

6. Regarding the cost of cultivation I am not informed, as I have blended other crops with the cultivation of the vines, though I am of the opinion that it would not vary much from $50 per acre, per annum, including summer pruning and training. This sum would certainly do the rough culture.

7. The crop the past season was only a ton and a half per acre, which I consider one-third of a crop when my vines are in full bearing.

I sold some grapes in Montreal, Canada East—some in New-York, a few in this vicinity, and the balance to a gentleman from the west, who distributed them from Chicago to New-Orleans. The net receipt for grapes the past season was $250 per ton; however, I am of the opinion that so high a price will not be realized again.

I permit my vines to produce but small crops, which is governed by judicious pruning, and thinning out the fruit when small. By this means the residue is larger and much higher flavored. In this way I am enabled to get the highest market price."

You will perceive by this statement, that the net proceeds of six acres of grapes at $250 dollars per ton, or 12½ cents per pound, without any expense of transportation, was $375 per acre. Deducting $50 for cultivation, and he had $325 for profit, a return quite as good I think, as a tobacco crop would have been. And is it not a strong argument against the cultivation of tobacco, that the same ground, with less work, will produce an article of such agreeable properties as to recommend it to the taste of every one, and commanding a ready market with large profits.

Draining Slops from Houses.

EDS. COUNTRY GENTLEMAN—As all matters relating to domestic economy that have a bearing on the health of our families, are exceedingly important, I may be indulged in a few remarks in reference to the *drainage* from the wash-house and kitchen, which is variously disposed of in our country places according to the *taste*, or the absolute *absence* of taste of the proprietors.

I shall, without attempting to disparage the judgment, or the practice of others, proceed to describe the plan which I have adopted, in order to avoid on the one hand the unsightly and inconvenient accumulation of ice near the kitchen door in the winter; and on the other, the still more offensive effluvia from the sink gutter in the summer. The water is conducted from the wash-trough into a drain beneath through a 2 inch lead pipe some 2½ feet long and so curved as to allow a portion of it always to stand full of water, which is, of course, displaced by each successive deposite; thus forbidding the ingress of cold air, or the return of noxious gases from the cesspool below. It will be observed that to secure the advantages of this arrangement, the drain must be carefully closed around the insertion of the pipe. The drain is made of brick with a fall of nearly an inch to the foot, and sufficiently deep under ground to render it secure from freezing; it terminates at a suitable distance from the house in a pit 4 by 6 feet, and 5 feet deep, walled up to the surface of the ground and securely covered. As there is considerable amount of waste water from the wash-house and kitchen, where there are several in family, this depository will occasionally require to be pumped out. I have therefore provided it with a cheap pump, so primitive and simple in its construction as to have cost less than two dollars; and yet so efficacious in its performance as to discharge, with ease to the operator, a hogshead of water per minute. It is made of pine boards about 5 inches square, with a stationary valve near the bottom, and a movable one attached to the piston rod as in the common pump—the piston is worked *without* a lever.

The contents of the cesspool are made to subserve a valuable purpose both as a renovator of the soil, and also for irrigation. In the latter relation it is exceedingly useful to the garden; for in a few minutes a man will throw up enough water to thoroughly irrigate every part of it—thus carrying both moisture and nourishment to the plants at a time when they most need it.

I have been thus explicit, because I believe this arrangement has many palpable advantages over every plan of conducting the drainage away on the *surface;* and because I have thought that a lack of perspicuity in a communication on so very common place a subject would detract from the *little* merit it might otherwise possess. C. *West Grove, Chester Co, Pa.*

Experiments in the Culture of the Potato.

EDS. CO. GENT.—The best mode of the culture of the potato is a subject of much importance, and one that will bear much investigation and study, and one that has attracted and is attracting the attention of the farming community to a considerable extent. I think that farmers do not devote the care and attention to this crop that they ought, for the potato is valuable not only as a vegetable for family use, but is very good to feed to stock through the winter and spring.

Our usual mode of raising potatoes is to plant on either sod or old ground, well manured, and use the largest and best for seed, well cut with a suitable quantity of eyes to each piece, with two pieces in each hill, and planted in rows 3½ by 4 feet, so that they will admit of being plowed each way, saving a great amount of labor with the hoe. But the last season I thought that we would plant a small piece in a different manner. This was planted on sod ground turned in the spring—soil, a gravelly loam, with a slight descent to the southeast—and planted in drills 4 feet apart—drills made with the shovel-plow, as usual. The best potatoes were selected for seed, and cut some three weeks before planting, in pieces with three eyes to each piece; and as one man passed along and dropped them one foot apart in the drill, another followed with a compost of hen manure, lime and ashes, and dropped at the rate of about one-half pint to each piece. The kind of potatoes planted were the Irish Cap and the White Merino; and to determine whether the compost would have any effect on the yield or not, there was one row of each kind left without the compost.

Now for the result of the experiment. At the time of the potatoes coming up, those with the compost were full four days ahead of those without, and at the time of hoeing, there was the same difference plainly to be seen. They continued more vigorous through the whole season, having a larger growth of tops, and of a darker color, than those without the compost. Now methinks I hear my brother farmer inquire, was there any difference in the yield? We answer, yes; those with the compost were much larger and more of them. I think that the difference in the yield more than paid for the extra expense of the compost, and labor of applying the same. Although the yield was not exceedingly large, yet it was good, compared with the yield of potatoes in this vicinity, (which was small the past season,) for at the time that the potatoes were in the blow, they were attacked by the potato bug, and stripped clean of their leaves, so that nothing but the bare stalk was left; but they again leaved out, and continued fresh and green up to the time of digging, which was Oct. 26th and 27th, not having had frost enough on this piece to kill the vines, although we had had frosts enough to kill the corn on some fields. A SUBSCRIBER. *Mantua, Ohio.*

GARGET POISON TO HORSES.—A writer in the *N. E. Farmer* relates a case where two horses died from the effects of a few small pieces of garget which had been cut for a cow in a hay-cutter used for cutting their feed.

Grass Culture.

It has been well said that "he is a benefactor of his race who makes two blades of grass grow where one grew before." That the honor is so easily earned, is perhaps one reason for so little effort to deserve it. The number of farmers, in grain-growing sections especially, who make grass culture the direct object, is comparatively small—very few give meadows and pastures the attention their importance demands, and which would be returned so handsomely. The truth is, the grasses get only slight culture or care—usually only timothy or clover are sown, and these with some grain crop. If the latter gets a dressing of plaster, it may be thankful, as it is generally the only fertilizer bestowed. The demands upon them, however, are less scrupulous both in hay and pasture, early and late—exacting much and bestowing little upon the ever-patient grass-lands.

The subject ought to receive more attention. Grass exceeds in value any other product of the country, although, as Prof. Johnston of Edinburgh, truly remarked, it is the worst treated of any crop among us. As yet it occupies double the number of acres necessary—the average yield of forage being less than half of what it might easily be made. Look at an instance in point. Mr. Elijah Wood, Jr., of Concord, Mass., as stated in the *N. E. Farmer*, produces on low, moist lands, an average of two tons per acre of excellent hay, and without re-seeding for ten or twelve years, by a judicious and not expensive course of management. When broken up, the working is thorough, the manuring and seeding liberal; and every other year, he gives a top-dressing of rich, well-pulverised compost. The hay crop is worth $15 per ton, or $30 per acre; the rowen is worth at least $8 more, while the cost of getting the hay, and interest on the land at a liberal valuation, is but $11, leaving $27 clear profit. There are thousands of meadows which might be made to do equally as well, which now do not yield an average of three-fourths of a ton per acre, and of inferior quality at that.

We might readily improve the character and productiveness of our grain-land meadows, by a more judicious management. Instead of cropping with one grain crop after another, until they can bear it no longer, we should seed down while yet in good heart, and seed down thoroughly and liberally. There is a very essential difference between the product and the profit of a field seeded sparingly, and one actually covered with grass and clover. The crop is of better character, as well as more abundant—it is not made up of weeds to any extent—it is less liable to suffer from winter-killing or drouth, and far more permanent either as meadow or pasture. In land partially exhausted, grass seed takes much less readily and perfectly than on land still fertile and adequate to the production of a medium grain crop. We believe more money can be made by following the rule to seed down with every sown crop than by neglecting it, even if we plow up the grass the next year, though this will seldom be necessary where corn and roots are produced.

Our plow lands, as hinted above, unless annually manured, should come into grass as often as every third year. If they are to remain but two or three years, it is well to seed liberally with both timothy and clover. The better and thicker the sward, the more successful the crop following its breaking up, and the less likely our lands to deteriorate in productiveness. The more we can grow on a single acre, the less need of running over two or three with the plow, and the greater chance for making all our lands yield liberally when we do plow them. We throw out but these few hasty suggestions, hoping the subject will receive the attention of our practical graziers and grain-growers, and they will communicate their experience for our journal.

Origin of Coe's Transparent Cherry.

This excellent cherry was raised from the seed by Mr. CURTIS COE of Middletown, Conn., and first brought into general notice by a description of it by Mr. DOWNING, published in THE HORTICULTURIST, in 1847. We have a letter before us to a gentleman of this city, from Mr. COE, in which he says:—"The way I obtained the parent tree was as follows: I planted seeds from trees of various kinds of cherries growing near each other. I raised from 50 to 60 trees from these seeds, which produced every one a different kind of cherry—not one of them like the originals from which the seed was obtained, nor any two of them alike. In this lot of seedlings there was but one very superior cherry, and that I named *Coe's Transparent Seedling Cherry*."

Management of Horses.

EDS. CO. GENT.—I observed in the COUNTRY GENTLEMAN, dated March 17, an inquiry made, of "what ails my horse?" by a person in Wolcott, Ct. He states that his horse is young, had not been harnessed for a week, and could hardly raise a trot—he fell down—very inactive—he ate and drank as usual—stupid and stiff, rather full and bloated—he is quite fleshy.

He has told us "what ails him." I suppose he wants to know the cause and a remedy. If the horse has not been foundered, it probably arises from want of exercise and too high feeding. A young horse is the better for being exercised every day, and fed upon a little hay *three* times a day, and two quarts of oats *three* times a day, and kept what is called in good order—not "fat and bloated." A horse that is worked or driven a great deal, should have his oats increased perhaps to *four* quarts at a feed; in some cases horses require even more than that quantity; if so add a little corn. A young horse requires more exercise than an old one, and if he is kept high and used but little, he will puff and blow, and is not in good condition to drive, and will "fall down." He loses the use of his limbs from want of proper circulation of the blood through his system. The horse requires a great deal of care bestowed upon him, and should be driven the first mile slowly. He will then be in good condition to have the lines drawn upon him, and, *if fast enough*, he will be able to keep the track and out of other's dust. Walk up and down steep hills when not hurried, so as not to distress him. When the horse returns to the stable, he should be well rubbed, then blanketed, and when dried off have a good curying. Before being fed with oats or water is given him, he should eat a little hay.

The writer of this has a horse that he has driven twelve years. He is now seventeen years old, and apparently as good as ever, and full as fast, and he expects he will last *ten* years longer if no accident happens to him. He is never sick—is fed as occasion requires. Never feed with clover hay, as *it* will, *nine times out of ten, produce* the *heaves* Good, sweet Timothy hay and oats are the best feed for a driving horse, and a quart or two of ship stuff at night if he wants loosening. I have known a *splendid* horse ruined by high feeding and the want of exercise—he would fall down, and finally died. DARBY. *Del. Co., Pa.*

Visit to a South Carolina Plantation.

EDS. CO GENT.—It would be well for the shallow-plowing, and no-grass-growing planters, still so numerous in many sections of the South, to visit the plantation and nurseries of the Messrs. SUMMER, at Pomaria, South Carolina. There they would see, even in the winter, fields green with grass, winter oats, barley, wheat and turnips (ruta baga.) and if their visit be the last of February, or the first of March, they would witness the land being plowed deep with a double team, for Cotton, and manure placed in the furrows made with a shovel plow for the rows of cotton. They use guano, stable manure, and a compost which will be experimented on this season and the results published in the Planter. I saw a field of about three acres of Egyptian Winter oats and barley, which had been pastured with thirty sheep during the winter, and which now gives promise of a fine crop. The sheep are the Southdowns, part of which have been imported from England. I do not see why the coarse-wooled sheep cannot be made very profitable; the mild winters here renders their keeping much less expensive than at the North. All the cattle, horses and mules are stabled at night and during the storms of winter. This is economy, because it lessens much the expense of their keeping. It is also satisfactory to the proprietors to reflect that all their stock are comfortable during storms and cold nights. This is the first and only instance I have seen of cows and cattle being stabled at the South. Each cow and steer knows its place, and goes there to be fastened and receive its evening's allowance. The Messrs. Summer prefer the Devon stock, of which they have some fine full bloods, of which they sold one about one year old, a few days since, at $150. They top their corn, cutting off the entire stalk just above the ear. The stalks are tied in bundles with twine, shocked, and at leisure, when thoroughly dry, stacked for the winter, and, when needed, hauled into the barn and cut with a cutting machine. Oats in straw are also cut and occasionally mixed with the corn fodder. By having all the food cut, they have no long manure, all being fitted to mix freely with the soil. The quantity of manure is also increased by stabling the stock. By plowing deep, not only is the crop increased, but the soil is less liable to wash, and there is no necessity for side-hill ditching, now so prevalent at the South, to prevent the land from washing.

Red clover is said to grow large; the Kentucky Blue grass has not been thoroughly tested, but the clover and timothy succeed well enough to form fine pastures during the summer season, and the winter oats and barley are all that can be desired for winter pasture for calves and sheep. Cattle and horses are too heavy to be allowed to run at large in the soft fields during the winter. At Greenville, in this State, I saw fine lawns of Kentucky blue grass (Poa pratensis.) By far the largest portion of the Carolinas is deficient in lime, the soil overlaying the crystaline rocks, (granite, gneiss, &c.,) hence the utility of lime as a manure. Let the planters use lime, cultivate grass and the cereals, plow deep, and thus they will be enabled to raise more cotton, and their soil will become better and more fertile by cultivation.

The nursery belongs to WM. SUMMER, who is doing much to extend the culture of fruit, ornamental trees and flowers in this State. He has been very successful with the pear, of which he has a great variety. Some which are coarse and almost worthless at the North and in Belgium, in this climate become fine fruit. Cherries do not thrive except when grown on the mahaleb stock. The curculio and black knot does not trouble the plum, of which Mr. Summer cultivates the best varieties. I observed the black knot very abundant on the thorn trees (Crataegus) in this vicinity. This is the region for fine peaches, and if Jack Frost would only stay north and not come here in the month of March, when he is not wanted, what a fine fruit section this would be. S. B. BUCKLEY. *Pomaria.*

Honey Blade or Hungarian Grass.

MESSRS. TUCKER—I have become wearied of an-answering communications from different sections of the country, for information as to the value and mode of cultivating the Honey Blade and Hungarian grass, which is one and the same thing. The COUNTRY GENTLEMAN having done good service in giving its true character last year, I trust has not become wearied in well-doing, and should like to see a fair description of the Honey Blade stereotyped and nailed at mast-head of the farmer's true sentinels, whenever it becomes profitable for these land-sharks to change its name again. What is this Hungarian grass of last year, and the Honey Blade of this? It is nothing more than what was *Millet* forty years ago—what was cultivated as summer or barn-yard grass seventy years since, which is the meanest of all grasses that grows.

Millet, on soils well adapted to its growth, gives a large yield, though by no means as much as corn, if well cared for, even for fodder, nor will cattle do as well on it as on corn, cured as it should be.

I have never seen it do as well anywhere else as on a newly burnt, clean, dry piece of good corn land, and sown the last of May or first of June. If sown for fodder merely, twelve quarts of seed to the acre, on such land, is not too much, whilst if cultivated for the seed, three quarts to the acre is all-sufficient. Three bushels of millet for feed is about equal to two bushels of corn if ground. It is worth but little to feed whole, except to sheep or hens, as nothing passes through them until thoroughly ground. If fed to horses or or cattle, one-half or three-fourths will be in good condition to grow after it has passed through them. How long it will lay in the ground and keep in good condition for growing, I do not pretend to know, but I do know that it will lay in the ground twenty-two years, when the ground is seeded to grass with the millet and kept to grass that length of time, and then broken up and cultivated for any crop. I have never known a farmer to continue raising it for any considerable length of time.

It is not the value of the crop that I am anxious to call attention to, but the gross extortion by many of the venders, selling an article of seed for ten dollars per bushel that is only worth half as many shillings.

I am anxious that the agricultural journals of the country should stand as sentinels for the farmers, instead of the apologists and advertisers of those who would make fortunes from the sale of Morus multicaulis, Chinese Yam, &c. You have saved thousands of farmers from great loss in days gone by, exposing these and a thousand other worthless things that are hawked on the farmers by these pirates, pretending to be our friends and would-be teachers. A. B. DICKINSON. *Hornby, March 20th*, 1859.

CATTLE SALE.—Extract of a private letter from Hon. JOHN WENTWORTH, dated Chicago, March 25th: "Your notice of 'Albion' (a Short-Horn bull owned and bred by R. A. ALEXANDER, Esq., see Co. GENT. vol. xi, pp. 284, 369,) was none too flattering. He beats everything that I ever saw. I bought a heifer by him out of Mr. ALEXANDER'S imported prize cow "Jubilee" by Lycurgus (7180) whom you must have noticed. I also bought a bull calf out of his celebrated red cow called 'Grisi' by Grand Duke (10284.) The calf was got by Alexander's celebrated Duke of Airdrie (12730) who was got by Duke of Gloster. Thus he has two crosses of Duchess blood."

Suspension Wire Fence.

Messers. Luther Tucker & Son—Having had much experience in wire fences, and never until now had any that were satisfactory, it may be of service to the public to give you a sketch and explanation of one put up on my lawn last year, which has gone through the seasons for expansion and contraction without injury, and proved a complete barrier against horses, cattle and sheep. I claim no credit for its application, and am solely indebted to Mr. Hewitt of the firm of Cooper, Hewitt & Co., No. 17 Burling Slip, New-York, where I went to purchase wire of the best quatity and at the most reasonable price, to repair and rebuild a variety of wire fences, which, as I before stated, were not satisfactory.

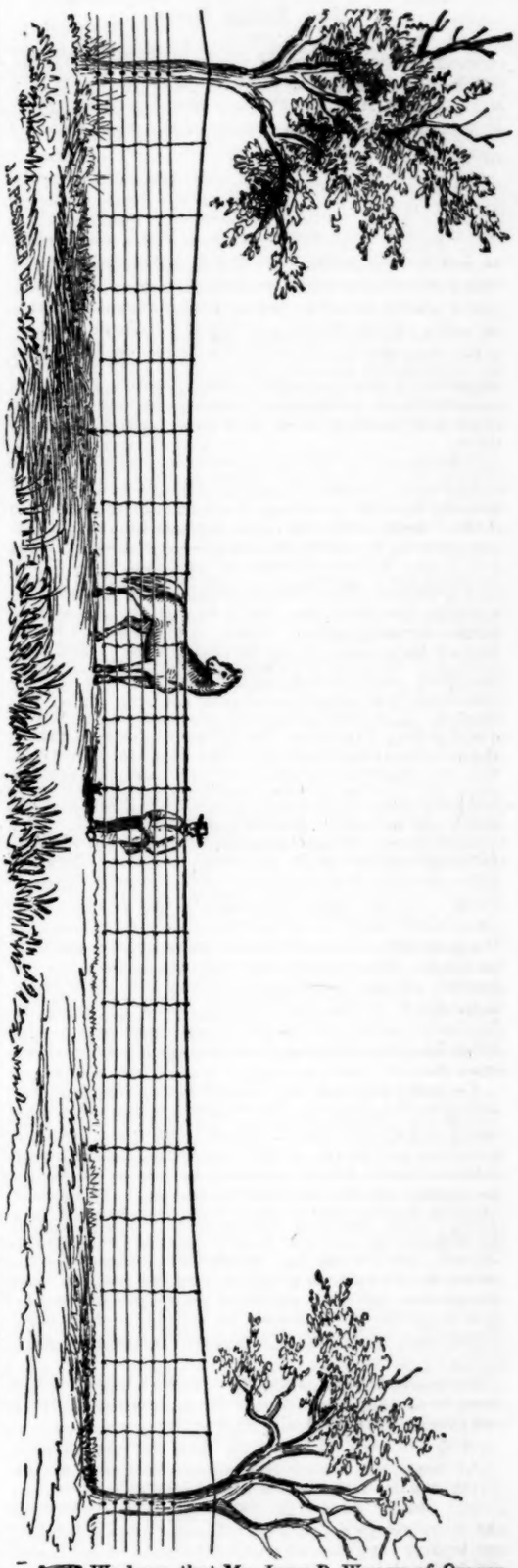
Mr. Hewitt informed me of a suspension fence, invented by his brother Charles, which he said was a perfect thing, and comparatively low priced, and was kind enough to describe it in the manner I am going to do to you, (but without a drawing,) informing me where samples might be seen in use, and offering to send me a practical man to put it up. I accepted the latter proposition, which I can assure you is the most important part, as the whole merit and beauty of the fence depends upon its being put up in such a way that if an animal comes in contact with it, each strand or wire will bear a proportional part of the strain or pressure.

The above illustration, with the size and quality of the wire, with an approximation as to cost, may induce parties wishing to build wire fences, to try this kind, which is the object of this communication; and if they desire to see mine, my location is such that they can do so readily. The engraving represents a panel of 100 feet in length, (the panels may be from 50 to 150 feet in length) the suspension rod, supported between two trees, being eight feet high at the trees, and five feet high at the center of the panels. The wires are secured to the trees by small sized staples, which will not injure their growth if properly driven and the trees are of a good size. The top or suspension wire, is of a larger size, say one-quarter inch rolled iron, upon which all the other strands (of number eight to number eleven annealed wire) are hung or suspended, by up and down smaller sized strands, (of number twelve annealed wire,) which are neatly woven, five feet apart, on the parallel strands, and secure the parallel strands at proper and equal distances apart. A wooden pin or stake is fastened to the center, and at several other parts of the panel, and driven into the ground, which draws all the wires "taut," and gives the panel a neat, festooned and graceful appearance. When cold weather approaches the pins or stakes can be drawn up a little, which gives play for contraction.

Paint the wires with rosin or coal tar, which costs a mere nothing, and may be applied by any common laborer, by warming the tar and dipping a woollen rag in the pot, and apply it by clasping the wires with the hand and rubbing it on, which is very expeditiously done. One or two coats will give it a glossy black appearance, and prevent all rust.

If trees do not exist where the fence is wanted, it is built in the same manner on posts set firmly in the ground, leaving eight feet above ground—panels fifty feet long. The posts should be well secured by sideway braces, either above or below ground, and the starting and ending posts, if trees cannot be had, will require very great care to make them firm in every way.

The cost of this fence, if trees are used, (which saves the expense of posts and setting the same,) will vary from one dollar and twenty-five to one dollar and fifty cents per rod, if the wire is properly purchased, and hands employed who understand the erection of it. In no cases let the number of strands be diminished, as cattle will attempt to get their heads through and graze on the opposite side, and will strain single wires, marring the uniformity of the fence, and giving an unseemly and careless appearance, by the grass or crop on the opposite side being bitten off unevenly. I would rather recommend an added strand, say eight instead of seven, besides the suspension rod. Yours very respectfully, &c., L. G. Morris. *Mount Fordham, Westchester Co., N. Y.*



How to Pickle Plums.

For seven pounds plums, take four and a half of sugar, one quart vinegar, four ounces cinnamon, two ounces cloves—put the spices in a bag—scald the sugar, spice and vinegar together—then pour over the plums—cover tight—let them stand on the stove and keep hot—but not boil, for four hours. J. A. S. *Buffalo.*

☞ We learn that Mr. John P. Welsh of Oregon, has just purchased from Samuel Thorne, Esq., the young bull Grand Admiral, by Grand Turk from Agnes. He was to go out by the steamer of the 7th inst.

A New Barley Insect.

A new insect, which we regret to learn, is already committing serious depredations upon the barley crop in several parts of this State, is thus described by Dr. FITCH, in the just issued number of our State Society's Journal:

In October LEDYARD LINCKLAEN, Esq., of Cazenovia, sent to the Agricultural Rooms a few joints of barley straw, containing the cells and larvæ of an insect by which the growing of barley in his vicinity had been much affected, and, to some extent, injured that season, and had also been noticed there one or two years before. An examination of this diseased straw led me to the confident belief that the insect was the *Eurytoma hordei* of Dr. Harris, originally found in barley in Eastern Massachusetts, and which he subsequently regarded as the same with the "Joint worm" which of late years has made such havoc in the growing wheat in Virginia. A statement to this effect, I think, was published in the Journal of the Society at that time.

With the hope of obtaining some of the parasitic destroyers of this important insect, whereby to render its history more complete, a request was sent to Mr. LINCKLAEN, to forward to us a small quantity of this diseased straw. A parcel was thereupon received from him, which was enclosed in a glass jar. July 23d and 25th, 1857, the flies were observed hatched, and crawling about in the jar, coming out unusually late—probably from the straw having been kept dry. Other engagements were so pressing upon me at that date, that I was unable then to turn aside to investigate these insects. And it was not till now, that, on examining the contents of this jar, I find they lead me to far more important results than I was anticipating. I obtained from among this straw some sixty flies, dead, but otherwise in good condition for study; about a quarter of their number males, all pertaining to one species, no parasites having been developed among them. And these flies are clearly a different species from the one described by Dr. Harris, though affecting the straw in the same manner. And now that I come to see in such a number of specimens of these barley flies, and a still larger number of flies from the Virginia joint worm, which I have before me, how perfectly constant and uniform these insects are in the colors of their bodies and limbs, the fact becomes patent that the joint worm of Virginia is a different insect from the Massachusetts barley fly, and not a mere variety of it, as Dr. Harris regarded it. We thus have depredating upon barley and wheat, in our country, three different insects, closely related to each other, and hitherto currently regarded as but one species. As it will be a year before I shall have an opportunity of describing these insects fully, in my Annual Reports to the Society, in connection with our other insects injurious to grain crops, I here present the marks by which they are recognized and distinguished from each other.

These are small insects, little over the tenth of an inch in length, the shape of their bodies having considerable resemblance to that of a wasp. They pertain to the order *Hymenoptera* and the family *Chalcididæ*, and are the only insects of this family yet discovered which feed on vegetation; all the other species whose history is known, being parasites on other insects, feeding upon them internally, mostly when in their larvæ state, and thus destroying them. European naturalists, therefore will scarcely credit us when we say these barley and wheat flies are enemies, and not friends. But so much evidence has now accumulated upon this subject, that we can no longer doubt as to their true character. They are much more nearly related to the genus *Pteromalus* than to the genus *Eurytoma*, to which Dr. Harris referred them. Still they may differ from other insects of the genus *Pteromalus*, and should very likely constitute a new genus. But until I have an opportunity to give the species of this most intricate group a more thorough revision, I am unprepared to decide as to their true generic location.

The BLACK-LEGGED or Massachusetts BARLEY FLY (*Pteromalus? hordei*, Harris) is black, its feet and knees pale, dull yellow, its *anterior shanks* of the same *dusky* or blackish color with the middle and hind ones.

The JOINT WORM FLY (which I propose to name *Pteromalus? tritici*) is black, its feet and knees and its *anterior shanks pale, dull yellow*, its neck with a dull white spot on each side.

The YELLOW-LEGGED or New York BARLEY-FLY (*Pteromalus? fulvipes*) is black, its *legs bright tawny yellow*, its feet whitish, its neck with a small, dull, white dot on each side. ASA FITCH.

Packing Eggs for Transportation.

MESSRS. EDITORS—As it may be of interest to those who wish to send eggs to a distance, I send you my mode of packing, by which they may be sent any distance, without danger of injuring their vitality.

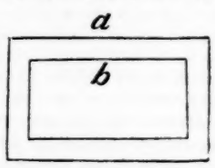


Fig. 1.

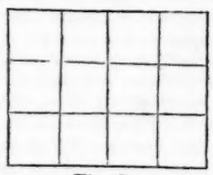


Fig. 2.

Each and every dozen is packed into a heavy pasteboard box divided into twelve cells, (see fig. 1,) one cell for each egg, so that there is no possibility of one egg touching another. To commence, I take out the divisions and put a row of wadding or batten in the bottom of the box, then replace the divisions, in each cell put an inch or so of bran, then place the eggs in end down, fill in around and cover the eggs with bran, then a layer of batten, put on

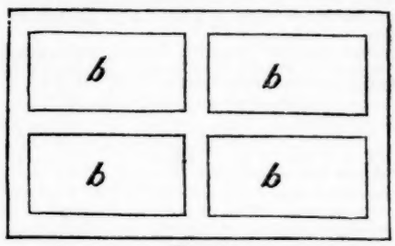


Fig. 3.

cover and tie carefully. Then, where only one dozen is sent, put this pasteboard box inside of a wooden box of a size to leave about 1½ inches in the bottom and all round sides and top to fill in with bran or cotton. To make it all plain, see fig. 2—*b* representing the box containing eggs—*a*, the outer or wooden box. When packed in this manner, eggs may be sent with safety a great distance by railroad, stage or other conveyance—the double packing of bran being elastic, the eggs do not receive any injury, should the outer box receive a jar. Four dozen or more can be sent with as much safety as one, care being taken to pack them as seen in fig. 3, so that they cannot by any means touch or jar, the space between each box, and between them and the outer wooden box being filled with bran or some other soft, springy substance to break the jar received by the outer box. E. S. RALPH. *Buffalo.*

Substitute for Green Apple Pie.

EDS. CO. GENT.—The following recipe I have never seen in print, though known to many. There are doubtless many thousands of your readers who have never seen it.

For one pie of ordinary size, take one-half of a slice of a shilling loaf of baker's bread, (home-made wheat bread will answer,) one teacupful of hot water, one teacupful of brown or white sugar, one teaspoonful of tartaric acid, and mix together, and season with nutmeg or lemon.

The above recipe will be found a valuable one, especially at this season, as in many places green apples are scarce, and difficult to obtain. It is equal if not superior to green apple pie. J. B. STOLL. *American Hotel, Branchville, N. J.*

Climbing Vines.

A neat method of supporting climbers is to take a strip of two-inch plank, two inches wide, planed the full length of the board, and painted green, which set firmly in the ground. Next, obtain from a wooden-ware or toy store, two children's hoops, one the largest and the other the smallest you can find. Now suspend the small one as near the top of the pole as possible, by strings, and fasten the large one close to the ground. Plant your seeds around the outside of the large hoop, and when up, run strings of soft twine regularly from the top to the bottom hoop. It will look better to have the hoops painted green, and the twine should be dark, and not cotton twine.

G. B. H.

Preserving Eggs and Bulbs.

Eds. Co. Gentleman—I noticed in your paper of March 17, a short article with regard to a communication which you had received from Mr. John H. Hall, of New-York, in which he claims "the discovery of the art of preserving eggs for an indefinite length of time, without the exclusion of light, air, or closing the pores." And it adds, that he has eggs that have been preserved by him nearly six months. I do not doubt it, yet I think I can beat him in length of time, and, perhaps, in the *simplicity* of the "art" of preserving. This day, March 26, we had on our dinner-table the "Yankee dish" of fried ham and eggs—and excellent it was too. The eggs were pronounced (by my husband and the rest of the family) to be *fresh laid eggs*. But I knew to the contrary, that they were not fresh, but were more than eight months old, preserved by the simple method which I have practiced for three years past with perfect success. I think I can safely assure your readers that if they choose they may, without the least trouble, preserve eggs perfectly fresh for any reasonable or necessary length of time, if they will manage them as I do. Which is simply this: Procure shallow baskets which are rather coarse or open, (they should hold about 8 or 10 dozen eggs;) carefully place the eggs in them, and without any covering, hang them on nails or hooks driven into the beams of the cellar. The lighter and more airy the cellar is, the longer the eggs will keep good.

I will also add, that we have found that the best way to keep Dahlia, Gladiolus, and other tuberous and bulbous flower roots, was to tie them with strong twine in small bunches, and hang them on the beams in the cellar, far enough apart so that the bunches do not touch. Of course, they have to be carefully labelled. We have practiced this way of keeping them for several years, and have not lost one bulb, and never the whole of a Dahlia root. We had fifty seven fine Dahlias hung up in the cellar last November, which I carefully examined, a few days since, and I did not find one unsound tuber among them. Sixteen of them were seedlings which I raised last summer, and they looked as plump and fresh as when put into the cellar. M. *Champlain, N. Y.*

Cleaning Seed Wheat.

John Johnston of Geveva, one of the most thorough and successful farmers in this country, as all our readers know, says that he quit raising chess *twenty-eight* years ago—by never sowing it. He has not raised a bushel of it in all that long period on his extensive wheat farm. Thirty-seven years ago he obtained eight bushels of chess in every hundred of wheat. His mode of cleaning seed is the same in substance that we have practiced thirty years ago, but will bear repetition, and we therefore give it as recently described by him:

My plan is to take out the fanning-mill riddles; some call them screens; I call the lower one only a screen—it takes out mustard seed and cockle *in part*. After the riddles are out, take off the shaking rod, or at least the one nearest the wings or fans. Then let one man turn the wings or fans by the crank or handle, as usual; let another pour the wheat into the hopper from a basket or any other vessel—a tin-pail answers very well—let him pour the wheat in regularly and not very fast, if much chess. Let the man turning keep up a steady wind; he need not turn very fast. Have a boy, or a girl, or a man, or a woman, if you choose, to take back the clean wheat as it comes down from the mill, and I will guarantee that every chess seed will be blown out. The man pouring in the wheat ought to be *boss*, to make sure that the man turning does not slack up too much, or that he don't stop turning until the wheat and chess are all out of the hopper, else it may fall down amongst the clean wheat. If the wheat is 60 lbs. to the bushel or over, very little, if any, will be blown out with the chess. As considerable will lay on the cockle and mustard screen, when that is going to be put down it 's safest to scrape back the upper part with the hand, because if there is chess anywhere amongst the wheat, it will be there. Now if this is done precisely as I direct, and if the wheat is not made entirely free of chess, unless three chess seeds are sticking together, which is sometimes the case with the top seeds on the main stalk, in which case there may be some left int he wheat; still a little more wind will blow them out. If any man will try it and cannot do it, send for me, and if I cannot do it to perfection I won't ask them to pay my traveling expenses.

Average Product of Cows.

This like all other productions will admit of various results. I should judge your correspondent "Native," did not live in this *country*, or at least it must be very near the *outside*, from his accounts of the proceeds of his cows and calves.

The farmers in this town give their whole attention to dairying. I will give you an account for their usual mode of managing, and the annual proceeds of some dairies. The cows begin to calve in the month of January, and where they can they like to get rid of all their calves before May. Their early calves are kept from six to eighteen weeks, and are then dressed and sent to Boston. Many commence making new cheese the first of April, some before, some later. When they commence as soon as the first of April they generally begin to send their cheese by the middle of May to market, and continue to send it every two weeks through the season, or till the first of December. You will perceive that a great deal of it is not more than two months old before it is sent to market. The average amount of cheese varies in different dairies from 300 to 500 lbs. to each cow, besides fatting the calf. The account of a good dairy would figure something like this:—

500 lbs. of cheese at 10 cts.	$50 00
1 Veal Calf.	10 00
	$60 00

It would probably vary from 40 to 70 dollars to each cow. J. B. B. *New Braintree, Mass.*

Average Product of 24 Cows.

Messrs. Editors—In the last Cultivator, you requested dairymen to give the average product of their cows. I cheerfully respond by giving my experience last year. My cows, 24 in number, averaged 172 pounds each, and we suffered from a very severe drought for two months, at that—172 lbs. each, at 24 cents, price sold for, amounts to $41.28 each for the butter, and we get about $1 each for *deacon* skins, and the calves that we raise we can sell in the fall for from $5 to $6 per head.

I consider the milk from a good cow, worth at least $5 to feed to calves or hogs. I think Native must have a poor lot of cows, or let them run in very poor pasture, to get only from $20 to $30 each. John Shattuck. *Norwich, N. Y.*

A Cow Worth Having.

Messrs. Luther Tucker & Son—The following article I copy from last week's "Madison County Observer." The statement can be amply proved if desired. Where Squire Hunt is known, his word will not be doubted. Gardner Morse. *Eaton, N. Y.*

"We have received the following statement of the amount of butter made during the past year, from a cow belonging to Otis Hunt, Esq., of Eaton Village:

Amount made from April 8 to July 8, ... 191 lbs.
" made during the month of June, .. 74 "
Made during the year, ... 516 "

Besides furnishing all the milk and cream used in a family of four persons all the time, besides comers and goers.

"The cow is of native blood, and we are assured that the foregoing is a fair average of the product of butter for years past. If the yield of milk was large in quantity, we can aver, from personal knowledge, that the butter made from it was good in quality."

Hens Eating Eggs.

In the Country Gentleman of March 24th, I notice an inquiry from "Down Easter," to prevent hens eating their eggs. I have been very successful in preventing it in this manner: Take a partially eaten egg from the nest, and substitute ground mustard for the yolk, and put the egg back again. I think one trial will prove sufficient. I have never been obliged to repeat it. Out Wester.

One of your correspondents inquires for a cure for hens eating their eggs. I have been troubled in the same way, and find no remedy so sure as the one I adopt for hens that will get into the garden and scratch up the new made beds. I hand them over to the tender mercies of the woman's department, where in the shape of a roast or a stew we make an end of them. T. L. B. *West Chester, Pa.*

A Productive Cow.

MESSRS. EDITORS—Reading the account of the OAKES cow in the Co. Gent., in regard to her high qualities, brought to my mind the qualities of one that I now own. She was dropped from one my father raised. We call her Cherry. Well, Cherry was dropped in 1842 or 3—she dropped calves regularly until 1859. She then failed to drop them—had none until November, 1854. In October, 1853, she was so prolific in milk and butter, that my mother spoke of it. I asked her how much butter she was making. She did not know. I said to her, set in the 1st of November, and make every ounce you can through the month. She set at it. For three days we used no cream for coffee; the residue of the month we used it twice per diem, three in family. She made forty and three-fourths pounds of butter in the same month. No other cow on my farm to give a drop of milk. I know nothing of her grade or stock. She has not dropped a calf since 1854, yet she has never ceased to give milk. She has always been in good keeping—stabled all the time in winter, except when let out in the yard to water, and at night in summer. You can judge how far she would fall short of the Oakes cow. S. H. BEAL. *Fluvanna, N. Y.*

To Make Cows "Give Down."

MESSRS. EDITORS—I have observed the question going the rounds of the papers, "how shall cows be prevented from holding up their milk?" and various remedies proposed, none of which I believe were claimed to be infallible.

When a boy my business was to suckle the calves night and morning. I noticed after the calves were of some size, and when first admitted to the cows, and after, when the milk was nearly exhausted, particularly if the supply was scant, that they made a most vigorous butting of the cow's bags, causing them to kick about lustily.

I wondered why they should keep up such a butting, evidently very annoying to their mothers, and after much reflection I arrived at the following conclusion: That the muscles of the lower part of the cow's bag and teats are closely but involuntarily contracted to prevent the escape and waste of their contents; that the butting of the calf is instinctive on the part of the calf, to cause the muscles of the bag to relax and permit the milk to flow. The muscles of some cows' bags seem to be more rigid than others, and hence require more of the punching process.

Acting upon the suggestions hereby derived, the next time I began to milk a cow that refused to "give down," I most vigorously, with closed hand, tried to imitate the performances of the calf, and with the happiest results. And, Messrs. Editors, I have never failed with the most obstinate holders up, by this method, to bring the milk speedily down. A. S. PROCTOR. *Rome Farms, Ill.*

Best Three Shrubs.

There are many persons who have but a limited space for flowers and shrubs, and yet, for want of knowledge, occupy the little ground they have with common flowers and shrubs, while the same space could be occupied with choice plants, costing no more at first, and requiring no more time and attention. In place, then, of the lilac, syringa, and others of that nature, which, though very proper in extensive shrubberies, are entirely out of place in a small garden, we would put *Weigelia rosea*, *Deutzia gracilis* or *scabra*, and *Spirea Reevesii*. These are moderate in size, beautiful in foliage and flower, and with a little attention to pruning in the spring, can always be kept of a good shape. G. B. H.

Three Bedding-out Plants.

The *Verbena* of course heads the list. Nothing can surpass this. Care should be taken to pin down the shoots with little wooden sticks, as they immediately take root at the joints, and grow more vigorously. Next the *Petunia*. There are about half a dozen distinct and desirable varieties, blooming freely the whole season. The Heliotrope should by no means be omitted. Half a dozen plants will keep you in perfume a whole season—perfume excelling anything ever *composed* by Mons. LUPIN. In my next I will treat of annuals. G. B. H.

Ground Cherry—Fig Tomatoes.

We endorse every word your correspondent Mr. FLEMING, says of these two fruits, and sure we are they will sooner or later be much sought after, especially with apples as they sell here.

We grew quite a quantity of both the past season, and intend trying them for market the coming, more especially the fig or husk tomato. It does not belong to the tomato or Solanum family at all, but is a variety of the *Physalis*, but which we are unable to say. The fig tomato when cooked, especially partially green, has much the flavor of some plums; it contains much more acidity than the ground cherry, and hence by many likely to be more prized. They are both most bountiful bearers, and as we have said before, if they have any fault, it is that they seed themselves rather too freely; hence will cause a little more hoeing—but being an annual in nature, are not more troublesome than similar weeds. All those who have tasted preserves made from the fig tomato, pronounce it excellent. The keeping of the fruit in winter is a new idea to me, but from analogy can easily perceive they will do it. EDGAR SANDERS.

Early Tomato and Cabbage Plants.

MESSRS. TUCKER—I wish to say a few words concerning a subject of great importance at the present time—that is, to procure good, large, and healthy tomato and cabbage plants. Those that have hot-beds can have them easily. This is for those that have them not. Make or procure a small box—an old raisin box will answer for tomatoes—*bore ½ or ¾ inch holes all over the bottom*; fill nearly full of good earth. Now every farmer knows that in the spring, manure thrown out of the horse stable in a little heap, will in two or three days begin to smoke; set your box on the top of this; put your cabbage seed to soak in a little warm milk until some of the seeds begin to sprout; supposing that the box has been over the manure a few days, so that the earth is warm, sow the seeds, and they will be up in from two to four days. Remember to water well with *warmish* water, because the heat below soon dries the roots. It is not well to sow too early because the natural soil will not be warm enough to receive the plants. Believing that every farmer ought to communicate through the columns of the Agricultural papers, anything that they think would be a benefit to others, I write the above hoping that it may be of benefit to some, by its quickness, who have failed to raise plants in the usual way. D. MCCULLOCK. *Arcola, Va.*

Culture of the Onion.

MESSRS. TUCKER & SON—I have often seen the culture of the onion given in THE CULTIVATOR. Now I will give my way of raising onions. If the ground is wet, horse manure is best for it. Plow it in the fall, and let it lay till spring. But if it is a dry, sandy soil, common barnyard manure is the best. Put it on in the spring, and plow it 8 or 9 inches deep, and then rake smooth, and draw your drills 14 inches apart—after marking, let it lay to the sun a few hours, and then sow 6 to 8 pounds to the acre. Cover up the seed, and roll the beds with a light garden roller. When they come up, a top-dressing of wood ashes is very beneficial to this crop. Hoe and weed when needed, but not hoe too deep. Thin out to 2 or 2½ inches apart in the drill. At the last weeding, brush the dirt away from the bottom to give it a good chance to bottom above ground. I have not given any time to sow, as every one can judge for himself. GEORGE T. OSBORN. *Pawling, N. Y.*

Best Three Herbaceous Plants.

First and foremost must be put the beautiful *Dielytra*—hardy as a peony, and infinitely more desirable, since the flower is much more elegant, and remains long in bloom.

Pyrethrum or *Double Feverfew*. By pinning the shoots to the ground as fast as they grow up, these can be made to cover a large space of ground, and when covered with their pure daisy-like double white flowers, are beautiful plants. They flower the whole season. They need, in this latitude, a little covering of litter in the winter to preserve them.

Delphinium Barlowi or *Hendersoni*, or Larkspur. These are beautiful varieties of this well-known plant, and remain in bloom almost the whole season. G. B. H.

Death of Col. Jaques.

Col. SAMUEL JAQUES of "Ten Hills Farm," in Somerville, near Boston, about and concerning whom the readers of the Co. GENT. have been informed from time to time, departed this life on the 27th ult., in the 83d year of his pilgrimage. The Colonel, as your readers have already been informed, was in many respects a remarkable man—one whose knowledge, if judged by the books he had read, might be regarded as limited, but if tested by his knowledge of things as they really are—as they exist in nature, would be regarded far otherwise. He improved what every farmer enjoys, his opportunities for observation and experience, thus furnishing and storing his mind with useful and valuable knowledge. He resorted to the original sources, not being willing to take instruction second hand or from books, but interrogating Nature herself, and carefully noting and treasuring up her oracular responses. In this way the Colonel had acquired a large amount of information not contained in books, but found in the recesses of Nature, who yields her treasures to none but earnest seekers, and such she never turns empty away. In this respect the life of Col. Jaques is a model for every young man who desires to become useful, successful and happy.

The breeding of domesticated animals seemed to interest the Colonel more than any other department of rural life. In this he has done more to develop the laws of propagation, than any other man in this country. He has not only originated a breed of cattle, but has in various ways, tested and confirmed by demonstration, that breeding in-and-in is not only the best, but about the only way of improving stock with certainty. He owned for several years, that remarkable English horse, known as Bellfounder, or Norfolk trotter. He had in his possession for some time, the Sherman Morgan, the sire of the Vermont Black Hawk.

The Creampot breed of cattle, as heretofore stated, was made chiefly of the blood of Cælebs, a Short-Horn bull, a grandson of Comet, and two extraordinary native cows. He has bred in-and-in for nearly 40 generations with constant improvement in symmetry, and no deterioration in constitution, as anybody can see who will look at the specimens still kept at his late residence. He was for many years a successful breeder of Merino sheep, as the premiums he received from the Society for the Promotion of Agriculture, abundantly prove. For further detail on these matters, the reader is referred to the back volumes of the Country Gentleman and the Cultivator.

The Colonel was remarkable, also, for his love of fox-hunting. Some still live who well remember the interest he formerly took in this kind of sporting. His horn, his hounds and his horse, were his equipments for this kind of enjoyment and recreation. He was always cheerful and full of life—active, vigorous and healthful, loved home and domestic scenes better than public life,—though public men were frequent visitors and most welcome guests at his spacious mansion. He frequently had the pleasure of entertaining the most distinguished gentlemen of our country. He enjoyed that rare and most un-American quality of not being an office seeker, though he had forced upon him the office of Inspector General of Hops, which he held from 1806 to 1838.

Notwithstanding the ups and downs of fortune which the Colonel shared, his life in this respect was a success, as he left his family a large and valuable estate. But had he left no property, the inheritance of his good name and virtues would be an invaluable legacy. While the surviving children mourn the loss of such a father, they may well rejoice in the reflection that to them the lines have fallen in pleasant places, and that they have a goodly heritage COLUMELLA.

Tobacco Culture in Connecticut.

EDS. CO. GENT.—A short time since I saw an article in the COUNTRY GENTLEMAN of Dec. 9, 1858, entitled "Essays of Arator." You wish to know what Connecticut tobacco raisers think of Col. Taylor's views on the subject.

When we set out tobacco, we know before-hand what we have got to do. The Col. says: "Even supposing the crop to amount to the extraordinary quantity of 1000 pounds per acre," we would seldom, if ever, find it producing a profit on a fair calculation."

In Hartford county, (and I may safely say without boasting we raise the best tobacco in the country,) a man thinks his crop a very moderate one if it does not exceed 1000 pounds per acre. My brother and myself farm together. Our last crop was raised on a few rods short of 4¼ acres, (measured with a Gunter's chain.) It was accurately weighed, and sold for 95 pounds less than four tons. The rust injured the crop somewhat, but we got $1,144.55, cash on delivery.

So much for that part, and now about its killing the land. Our system is—put about 30 loads barnyard manure mixed with muck, on an acre; plow it in well, and thoroughly harrow the land; then take a small plow and make a furrow; put in guano and plaster at the rate of 300 pounds each per acre, and plow two light furrows on the top of it. The hills are made with a slight spat of the hoe on the ridge, about 20 inches in the row, and 3½ feet the other way.

We use the land two years in succession for tobacco, and then seed down to grass with rye, and we have good rye and good grass.

The labor on our crop was done by three men and a boy, who in addition took care 7 acres of corn, 9 of rye, 7 of oats and 2½ of potatoes, besides cutting 25 acres of grass. Men in our town have raised the past year 2,200 pounds tobacco per acre and sold the greater part of it for 20 cents per pound, too.

It don't do, Messrs. Editors, to tell Connecticut men that raising tobacco don't pay.

I am acquainted with a man of truth and veracity, who told me he had raised tobacco for nine years in succession on the same land, and got never less than 2000 pounds per acre.

Perhaps I should have said that the land in this town is generally sandy, or sandy loam, and dealers say it raises the finest quality of tobacco. A YOUNG FARMER. *Simsbury, Ct.*

Common Cattle for Oxen.

MESSRS. LUTHER TUCKER & SON—I send on for the columns of the COUNTRY GENTLEMAN, my experience in regard to the superiority of the common scrub stock, over that of large thorough-bred cattle, for oxen. Now for the proof of my theory. I usually feed about 80 or 90 cattle during the winter, which requires my oxen to do a great deal of traveling, often over frozen ground, in the field, and along rough or rocky roads. For work cattle, I have always used what in Kentucky are termed the scrub or mountain cattle. These cattle are far more hardy than the thorough-bred; more active and capable of fatigue, from the fact that their feet remain uninjured in traveling over frozen or rough ground, in such situations as would ruin the feet and disable our large Durham cattle. I have now six oxen of this kiud—have been feeding and wooding with them all winter, and for endurance and activity in performing a given amount of work in a short time, would not give them for the largest Durham or thorough-bred cattle. ISAAC P. SHELBY. *Ruemont, near Lexington, Ky.*

Pitching Hay by Horse Power.

Every farmer who has ever pitched off from a wagon in one day ten or twelve tons of hay, is aware that no labor on the farm can be more fatiguing. The common horse-fork, which to a considerable extent, has been brought into use, has afforded great relief, this severe work not only being avoided, but much greater expedition attained. The effective force of a horse is at least five times as great as that of a stout man; and if half an hour is usually required to unload from a wagon a ton of hay, then only six minutes would be required to accomplish the same result with horse power. Actual experiment very nearly accords with this estimate, five to seven minutes only being required by the assistance of the best horse-forks.

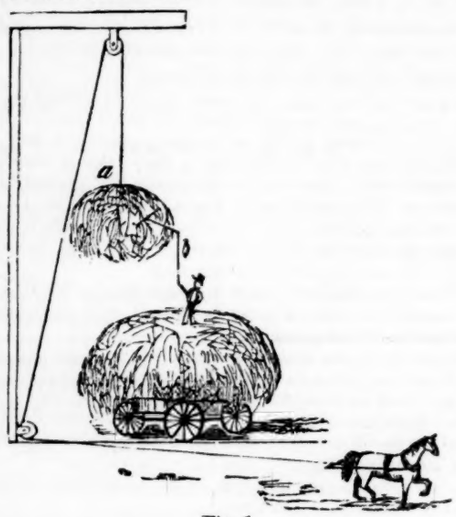


Fig. 1.

The accompanying figure (Fig. 1,) shows the common implement, and the mode of using it. Fig. 2 is an enlarged representation of the rake. The head is about 28 inches long, and has steel prongs of 20 inches. The rope attached at *a*, or as it should be, rather nearer the rake, passes over the pully above, by which the fork, after being thrust into the hay, is lifted by the strength of the horse, outside the barn-door. The fork is kept in a horizontal position and the hay retained upon it by the cord *b*, until high enough, when this cord is slackened, and the hay accordingly deposited or dumped. The horse is backed and the operation repeated.

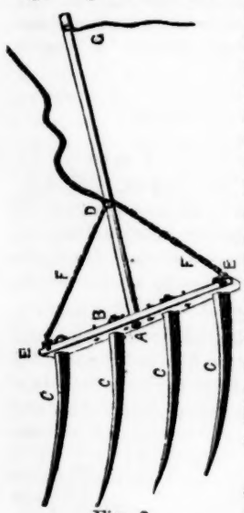


Fig. 2.

There are however some difficulties in the use of this fork. The most so results from the necessity for the handle of the fork to sweep upwards in a vertical position whenever the hay is dropped from it—and falling back it is in danger of striking the operator. It is hence impossible to use it under a low roof, beyond perline beams, or when the mow is nearly filled. To remedy these difficulties, C. E. Gladding of Troy, Pa., has recently constructed a fork (Fig 3,) which after a recent trial, we are satisfied is an important improvement. It differs from the common horse-fork by placing a hinge joint at the connection of the head with the handle; so that at any moment, by a jerk on the cord which passes up a bore in the handle, the fork is dropped, as shown in Fig. 4, and its load deposited. This may be done instantaneously, at the moment it happens to be swung to the most favorable

Fig. 3.

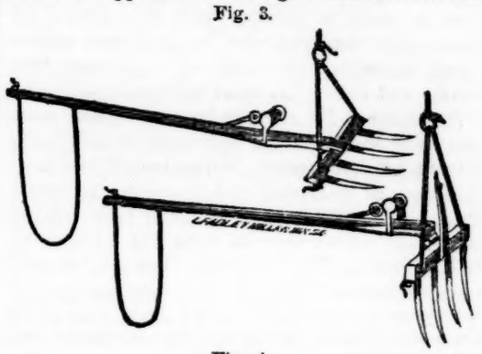


Fig. 4.

spot. The fork is so hung that its weight causes the head to fly back of its own accord and resume its former position,—where it is held by an iron catch until the next forkful is to be discharged.

It should be observed, that the rope suspending the fork should be fastened to the highest portion of one of the rafters over the mow, and a smooth board should be placed vertically against the face of the mow, for the hay to slide against in its ascent. By attaching this rope in front of and within a window, the hay is carried with ease into the window, and thus lofts over sheds, carriage-houses, &c., where the common horse-fork could not be used, are filled by the use of Gladding's improvement. It may (as well as the old fork) be also used for stacking, by making a tripod of three long poles, from which to suspend the implement.

We are informed that the inventor of this improvement intends to furnish this fork, with the necessary ropes, pulleys, &c., complete, for the moderate sum of twelve dollars—which we think would be saved in labor in a single season on any farm of considerable size—a remark which will indeed apply to either this or the old horse-fork—both of which are great savers of labor.

Uniting Side and Main Drains.

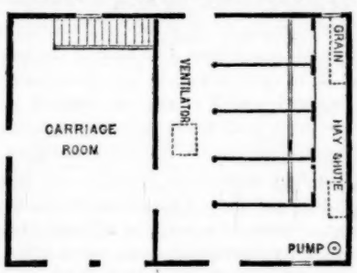
In my reading on the subject of laying tile in under-drains in Rural Affairs and in Colman's, Munn's treatise, &c., I have failed to learn the manner of entering the small tile of side drains into that of main trains. I could do it, but I will be extremely obliged if you will post me up on the subject, or refer to any work from which I could learn the *best* mode of doing it. A. BERRY. *Raymond, Miss.*

Break off a portion of the ends of the larger tile, and place them as shown in the annexed figure, leaving a hole into which the smaller tile is thrust about as far as the figure exhibits. Then cover the whole joint well with a small flat stone or two, and apply the straw preparatory to covering with earth. The bottom of the main tile should be at least an inch or two the lowest, so that the side drain may afford no obstruction to the main current.

A Horse and Carriage Barn.

During a recent visit to a friend, we observed an unusually neat and convenient brick horse barn and carriage-house which he had recently erected. It was constructed with an especial view to cleanliness and perfect ventilation. Its dimensions are about 22 by 36

feet—it has four horse-stalls, surrounded on each side with open passages, admitting freely both light and air. Hay from the "hay-shute" drops from the loft above into the feeding passage, and is readily given to the horses through broad openings in front of their heads, about four feet high. These openings are substantially lined with thick sheet iron to prevent gnawing. The partition containing these openings does not extend up to the ceiling above, and the partitions between the stalls are only high enough to effect a proper separation,



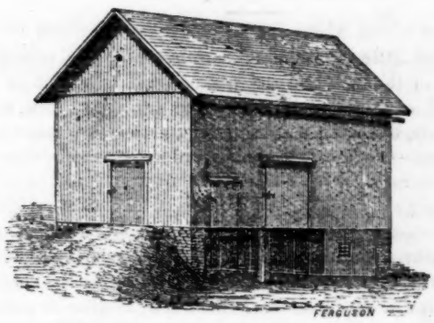
allowing a free circulation of air. The passage over which the ventilator is situated, is used for clearing away the manure. The ventilator passes up through the center of the hay loft, and supports the roof. A harness and saddle room is under the stairs. A large cistern holds water enough for the use of the horses, as it is brought up by a pump at the end of the feeding passage.

Phloxes.

It is strange that this beautiful class of herbaceous perennials is not more generally cultivated. More attention is paid to the growth of them than formerly, it is true; but still there are very few gardens which boast of more than the old two varieties of white and pink Phloxes, known by most persons only as the "French Willow." These persons may be surprised to know that there are several hundred distinct varieties now cultivated. Elwanger & Barry, in their Catalogue for the present year, have one hundred and fifty-five named Phloxes. The period of flowering has been gradually extending, until it reaches from July 1st to the time of severe frosts. There are also several sorts of creeping Phloxes, blooming in May or June, and which propagate themselves by runners.

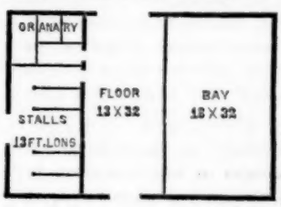
The Phlox in all its varieties, is perfectly hardy, and requires no care whatever, except that the plants should be divided (either in the fall or spring,) every three or four years.

The Phlox Drummondii is one of (we are tempted almost to say,) *the* most beautiful annual with which we are acquainted. Grown in a mass in a border by themselves, nothing can exceed them; as they embrace every variety of tint, and are in bloom for a period of at least three months. G. B. H.



Barn for a Small Farm.

The accompanying plan and view represents a barn adapted to a farm of moderate size, erected by E. W. HERENDEEN, of Macedon, N. Y., on a tenant farm in an adjoining township. It is neat and compact, and has been found to combine many conveniences for a barn of such moderate expense, the whole having been built for about five hundred dollars.



It is 32 by 44 feet, and with posts 18 feet high. It is very substantially built—the siding being vertical unplaned boards—the doors hung on iron rollers—and the floors made of two inch pine plank, planed and matched. The basement is occupied as cow stables and shed. The horse stables are above, experience having proved that horses are healthier above ground. The stable door is at the end of the building, as shown in the view; and directly in front of this door is a wide stall, admitting a span of horses in harness side by side when desirable

Notes about Potatoes.

MESSRS. EDITORS—In the April No. of THE CULTIVATOR, C. W. G. asks if the Chenango and Mercer are the same potato? I have often heard them called, by some of the agricultural papers, the Mercer, Chenango, or Shenango, and the Neshannock—the latter name is what they are called here, where they originated, in Mercer county, Pennsylvania, a great many years ago, from seed, by Mr. GILKY, on his farm near the banks of the big Neshannock, from whence they derive their name. Their origin on the Neshannock being but a few miles from where it empties into the Chenango river, may be the reason of their being called by that name sometimes. Very few kinds of potatoes have been so highly valued as the Neshannocks, and they are found in every section of the Union, either growing or in their markets. However they are not as prolific as some other kinds, and are subject to rot some seasons, but for the last two or three years our crops have not been much injured with the disease; but some five or six years ago potatoes were almost a total failure here. I tried a great many kinds, to find some one that would be exempt from rot. I found the Rough Purple Chili to make a good crop, clear of rot, two years in succession, when all the other varieties that I had planted in the same field rotted so that I never dug them. The Neshannocks that I have met with in different sections of the country, are somewhat different from our old original, both in shape and color. At present I cultivate none but the Chili and a few of the Prince Alberts. The Chili are an excellent cooking potato, and will yield more from the same amount of seed than any other kind that I can get. J. A. NELSON. *Mercer, Pa.*

Culture of Spring Wheat.

Where winter wheat can be grown, spring wheat receives but little attention. There is a very good reason for this in the fact that the winter grain is almost invariably of superior bread-making qualities. But of late years, the culture of the spring variety has largely increased—the failure of the better kind having become very general over its former most favorable localities. In the hope of escaping the ravages of the wheat midge and Hessian fly, farmers have turned some attention to spring wheat—a hope which a better knowledge of this grain proves of slight foundation or importance. The experience of late years has enabled us to give its proper position to this crop, and taught us that while *soil and culture* have very much to do with success in wheat-growing, wherever sown, or of whatever variety, that the *accidents* of season and insects cannot be wholly guarded against by human labor or foresight. Still many among us will sow a few acres of spring wheat, and will hence be interested in a few remarks on its culture.

1. The soil most suitable for spring wheat is a deep loam, with some portion of clay, but one in which neither sand or clay have a large predominance. Heavy clays and light sandy soils give but inferior crops, as also those of a low mucky character. We have grown very good crops on a gravelly loam, sowing after corn or potatoes. An active, or warm quick soil is required—as the crop has only about three months in which to come to maturity. This fact should also be kept in mind, as it is an important consideration.

2. The preparation of the soil should be of a thorough character. A clover ley turned under carefully in the fall, and then thoroughly harrowed or cultivated in the spring, is thought very favorable for producing a good crop of spring wheat. Corn or potato ground, of a suitable soil and in good heart, we should prefer for our own sowing. Let it be well plowed, and brought into fine tilth before sowing. Other stubble lands, needing to be manured for this crop, would generally be more uncertain than either of those above named. The manure applied should be pretty well decomposed, and the plowing and preparation such as to ensure a mellow soil. Guano, poudrette, and other concentrated manures, might be employed in this case with good effect.

3. Sowing, it is very generally agreed, succeeds best very early or very late, where injury from the wheat midge is apprehended. This insect has a certain period in which a greater part of its depredations are committed, slightly varying in season, and continuing about twenty days from the middle of June. Late sowed wheat is more subject to injury from the Hessian fly. As to the manner of sowing, it is essential that spring wheat be covered to as nearly an even depth as possible, otherwise it will not ripen together. Hence the seed should either be drilled in, or great care taken in harrowing down before sowing, so as to cover at equal depth as far as may be.

4. The varieties of spring wheat are numerous; but those now most popular are the Fife, Club, China Tea, &c. The first is highly commended for late sowing; the second seems to be deteriorating in many places; the latter has recently been quite successful in some sections of Western New-York. We cannot pretend to say what variety would prove most successful in any locality—experience should be consulted and regarded. So also in regard to soil and culture; and it may be well to add that our remarks are meant for sections where spring wheat has but recently been introduced.

Grass Culture in New-England.

We last week offered some thoughts on grass culture, intending then to leave the subject with our readers and correspondents; but having since seen reports of the late discussion by the Mass. Legislative Ag. Meeting on this question, will glean some facts and figures therefrom throwing light upon it.

The chairman, Hon. J. W. Proctor, thought clover, timothy (herd's grass) and red-top, were the best species for hay. Instead of sowing hay seed with wheat or oats in the spring, as formerly, he now plowed and seeded in August, and the practice would become more common as its benefits were realized. This method produced from one and a half to two tons per acre. The latter yield was obtained in Marblehead, by the use of sea-weed as a top-dressing, applied after the summer crop was removed.

Mr. B. V. French argued the general necessity of drainage for the production of grass and hay, especially of swamp meadows and pastures.

Mr. Lawton of Great Barrington, had cultivated land for hay for thirty years without breaking up, and had realized as much as two tons per acre—which he thought worth fully as much for feeding stock as a larger crop. To give the best quality of hay, the grass should stand up well, and much more than two tons to the acre will not do this; if it falls down, it has less nutriment. When he prepared land for hay, he drained, plowed deep, harrowed well, used ashes and compost, and planted corn, plowed again in the fall and manured with compost, and sowed down with timothy, red-top, and clover. He had less success with grass sown in autumn than in spring. Grass sown in spring without grain, the ground manured, had produced a ton and a half to the acre the same season. He top-dressed his meadows every second year, and disapproved of plowing in buckwheat as a manure—it produced an acidity in the soil unfavorable to the healthy growth of grasses. He had underdrained soft meadow land, and also wet upland, with great profit. Irrigation was practiced somewhat in his section, and was of much benefit to grass in its earlier stage.

Mr. Wetherell of Boston, said that in some of the central counties of the State, there were lands which yielded two crops every year, or three tons per acre the season. They were top-dressed every other year, and were not fed with cattle. The rule was to apply this dressing (of barn-yard manure) as soon as the crops were taken off, and they were never plowed or broken up. Clover, red-top, and timothy, were the best kinds to be used for seeding land.

Other topics and other speakers are mentioned in the reports, but we note only those matters most pertinent to our general subject.

CRACKED HOOF.—Allow me to inform J. S. P., if he will take a thin, sharp furmer or chisel and mallet, and cut the width of the chisel, say 1¼ inch wide, next the hair, above the crack crosswise and keep the hoof closed together by means of a round shoe, and soften up the hoof with white pine pitch, which he can obtain from the end of pine saw logs at any sawmill where the logs can be found, or he can soften it up with blue clay and fresh cow manure. A. L. *Mexico, N. Y.*

New Publications.

ESSAYS ON THE SOILING OF CATTLE, Illustrated from Experience; and an Address containing suggestions which may be useful to Farmers. By JOSIAH QUINCY. Boston: John Wilson & Son.

The first of the two Essays contained in this handsome volume, was prepared by its venerable author as long ago as 1819, at the request of the Agricultural Society of Massachusetts. The second was written in 1852, and the two, together with an address delivered just forty years ago, comprise a valuable review of the system of soiling, as well as hints as to other means for the promotion of Agriculture, and we shall hope especially on the former subject, to present some considerable extracts to our readers. For the copy of the book before us, we are indebted to Hon. JOSIAH QUINCY, Jr.

THE AMERICAN HOME GARDEN. Being Principles and Rules for the Culture of Vegetables, Fruits, Flowers, and Shrubbery. To which are added Brief Notes on Farm Crops, with a table of their Average Product and Chemical Constituents. By ALEXANDER WATSON. Illustrated. New-York: Harper & Brothers.

We copy above the title of a new book which has been awaiting notice for a week or two, and which appears to be a most useful addition to our rural literature. It is embraced in 530 pages of clear type, and although we have not yet had time to examine it closely enough to be able now to criticise scrupulously its minor points, it seems to us to be eminently practical in design and clear in execution, while its scope is one that no previous work in our knowledge exactly fills. [We have ordered a quantity, and will send post-paid on receipt of the publisher's price, $1.50 per copy.

Notes from Correspondents.

VALUE OF AG. PAPERS.—Enclosed please find $2 to pay for "Co. Gent." the current year. I have taken the paper from the first number, and have some money still in my hands belonging to it, which I shall continue to remit yearly so long as the paper and myself live.

For the benefit of those farmers who think Ag. Papers of no use, I will tell you how I got this money. Four years ago last fall, I bought some fine Leicester sheep. The first winter was cold, and not having provided any roots, the sheep had to live on hay. In February one sheep was taken sick with a disease of which I knew nothing, and died the second day. A few days after, I had been to the post-office and got the Country Gentleman. While reading it, my man came in and said another sheep was sick. I was then reading an article describing a disease among sheep called *stretches*. I took the paper, went to the barn, and found the sheep in the condition described by the paper. I gave the remedy, (Castor oil.) The next day the sheep was well, and in March brought me two lambs that I sold for ten dollars each, and I would not take ten dollars for the sheep now. So I think I could put thirty dollars to the credit of the "Co. Gent." This is one of many valuable items got from Agricultural Papers. J. W. K. *Toledo, O.*

BARLEY.—I send you a sample of pure hulled barley, as taken from the thresher. It is entirely new to me, though it may not be to yourselves. Some years since, a friend of mine received from Salt Lake, some barley which he sowed, and from its product picked something near a gallon of the hulled barley, which he sowed, and from which he raised about two bushels. From that quantity, if I have not been misinformed, he raised forty bushels last year. I have sowed five bushels this spring; and the result I will give you next fall.

GRAFTING WAX.—I notice in No. 8, Feb. 24, p. 129, a recipe for making grafting wax. I take one pint of linseed oil, 3 lbs. rozin, 1 lb. beeswax—melt well, and pour into a vessel of water—grease the hands and pull until white. I have been using it for several years, and prefer it to any other. Vegetable oils stand the weather better than animal.

HUNGARIAN GRASS.—I sowed last year half a bushel of Hungarian grass-seed on one and a half acres of ground. Having no means of weighing, could not tell how much per acre, but double the quantity of timothy I ever raised on the same quantity of land. A great deal of it was grown for sale in this county. Both farmers and livery-stable keepers are much pleased with it. For hay, sow one bushel to three acres—less for seed. Sow any time from the 1st of May to the last of June; put in shallow. As a feed, I prefer it to any kind of grass or small grain. It sells for $15 per ton—timothy and common late millet, $10 to $12 per ton. JAS. DONEGHY. *Independence, Mo.*

ONION CULTURE.—On page 203, vol. xiii, no. 13, I find instructions about the culture of the onion. Mr. W. says the drills need not be more than eight or ten inches apart. Such has not been the experience of careful cultivators in this vicinity, where as much attention is paid to growing the onion as any where I know, and where they are as careful to get all they can from their land. From 500 to 700 bushels of merchantable onions is looked upon as a good crop, upon land well prepared and highly fertilized. Rows 14 inches apart has become an established usage. If a less distance would do as well, I think our cultivatiors would have discovered this. They are careful to raise their own seed, and to sow none that has been on hand more than a year. In selecting onions for growing seed, they are careful to pick out the form and size they wish to raise. But first of all they are careful to keep their land clear of weeds. ESSEX CO. *Mass.*

MISSOURI.—Farmers and mechanics of all kinds can do no better than to emigrate to Missouri, as lands are cheaper here than in any of the free States of the Union. Missouri has a good climate, and a soil, deep, rich and strong. C. F. H. *Novelty, Knox Co., Mo.*

TO KILL LIVE-FOR-EVER.—I have seen inquiries how to kill live-for-ever. I think a good way to do it, is to collect a heap of old stumps and rough wood—cover this with the turf of live-for-ever, and set fire to it. You will thus get rid of a pest, and have a fine heap of manure. J. W. LEQUEAR. *Frenchtown, N. Y.*

THE HOG CHOLERA.—Hogs are dying in this vicinity with "the disease," and by starvation. There was not a bit of mast last fall, either oak or beech, and no fruit of any kind. I know of one man who has lost 21 hogs out of 40—another has only 11 left of 40—another only 21 of 60—another had seven in a pen fattening, and they all died. J. J. CRAIG. *North Madison, Ind.*

MANAGEMENT OF HEIFERS.—D. M. N. inquires "if it is best to let his heifer go dry after her first calf." I will give him my experience, which has been for the last ten years, to have my heifers drop their first calf at two years old, and if possible to have them come in when they can get a full bite of grass, which has a tendency to make large udders. Let the calf follow her, say five or six weeks, and then wean, or sell to the butcher. I then milk her until about three weeks before she has her next calf. I prefer to have her farrow for one year—she will then be four years old. I choose this course for the reason that they make better cows to come in at two years—not so *steery* looking. The next year, being one of comparative rest, nature has time to restore her exhausted energy, and to increase the animal to full size. When heifers are milked a short time with the first calf, I have always found them to be short milkers, falling off about the same length of time they were milked with first calf. J. C. H. *Chesnut Ridge.*

FLAT FEET IN HORSES.—I would inform E. R. B. that it will not answer to let the shoe rest upon the frog, (or in other words, the frog upon the shoe,) if so the horse will be lamed. He can grow out a new hoof in three months. Make a bed or box of blue clay and fresh cow manure, and make your horse stand in it as much as possible, and keep your blacksmith from paring away the heel of the hoof, and your horse is well. At the same time annoint the hoof close to the hair, with white pine pitch from green pine trees or logs. Careful usage and kind treatment is necessary. A. L. *Mexico, N. Y.*

Dissemination of Weeds.

A young farmer once remarked to us that he had no doubt that new plants were constantly springing up everywhere, and that at least one plant could be found on every farm, wholly unknown elsewhere. Every one having the least knowledge of Botany is aware that this opinion is simply absurd; and that a new and undescribed plant, even after searching a broad continent for it, is a rare thing. Others again are sure that one plant often changes to another—which, however, they would not admit in the case of animals. A friend once expressed in strong language his view of the fallacy of this notion—"Only admit," said he, "that one distinct plant is transmuted to another, and soon the whole face of the globe would be such chaos that the Creator would not know his own works!"

We have at different times had occasion to observe the springing up and growth of great crops of certain weeds, when it was impossible to say how the seeds could have been placed there. In one instance, an old grass field was plowed in spring, and a dense growth of the common pig-weed grew on the inverted sod; in another case, a meadow which had been in grass many years, yielded when plowed a profuse crop of foxtail. Yet this did not lead us to doubt the immutable law that all plants "yield seed after their kind," and that to "every seed is given its own body" or identity. And if, being on the spot, and constantly observing, was not sufficient to enable us to explain all the secret causes which operated in spreading or preserving seed, a stranger a thousand miles off, could not of course examine very thoroughly into these causes.

This brings us to what we wish to say in answer to the inquiry of our correspondent, E. LINK of Greenville, Tenn. It appears that he sowed wet land with timothy, which was immediately followed by a great crop of chess; that the chess was mowed, and timothy took its place. He "looks upon the doctrine of transmutation as a heresy;" and of course does not believe that the timothy changed to chess, and then chess back again to timothy; but he wishes to know how the chess seed got there. We could mention several ways by which this *might* be satisfactorily explained, but none of them might be the true one; and as we always prefer facts to guessing, it is needless for us to enter the field of conjecture, with so little information as to all the local circumstances of the case. We have on former occasions explained the many insidious modes by which the seeds of chess are spread entirely unknown to ordinary observers, and it is not necessary that we should repeat them here.

Cultivation of the Cranberry.

In answer to J. G. NORMAN—the art of cultivating this plant artificially is perhaps yet in its infancy. While some cultivators have been completely successful, others with nearly similar treatment have failed.

It is not improbable that there may be some hidden quality in the soil that has an important controlling influence—in the same way that while some rich calcareous soils are poison to the laurel, there are other soils on which it will flourish with great success.

Attempts to raise cranberries on strictly upland soil have generally resulted in failure. Where successful, the plants have needed careful cultivation, and would not endure neglect; and the soil instead of being dry, has been of the character of moist meadow land. The best soil is said to be beech sand—or this applied several inches over a swamp surface. The clear sand not only seems best for the growth of the plants, but prevents the entrance of weeds or grass. Peat often affords a fine soil for the cranberry, if after the roots of trees and bushes are cleared away, the whole surface is pared off so as to remove grass, plants, &c., and leave a clear surface, which before planting should be exposed to the weather one year to soften and crumble it. Water *is always* necessary, but stagnant water must be avoided, and there should be sufficient drainage for the overflowing water to be drawn off at pleasure. Clay soils will not answer. Rich alluvions will make the plants grow too luxuriantly, and manure will either destroy them or induce them to run all to stems or vines.

Formerly the practice of setting out in sods was preferred, but as this mode also introduces all the weeds and grass that happen to grow among them, the practice is now preferred of separating the plants. The nearer together they are placed, the sooner they mat the surface, but two or three feet is a common distance. It is important to procure the most productive plants, as some, although growing luxuriantly, produce but few berries. Among others who keep them for sale, D. L. Halsey of Victory, Cayuga Co., N. Y., has a fine sort. We would recommend our correspondent to procure and read Eastwood's treatise on Cranberry culture, published by A. O. Moore of New-York, and sent by him by mail on the receipt of fifty cents. We should also be glad to hear from any of our correspondents who have been successful in planting out and raising the cranberry.

Wool Table.

EDS. CO. GENT.—I send you a description of a wool table we have been using several years with satisfaction. It consists of four boards, six feet long and one foot wide, with the exception of the board for the bottom of the box, which is ten inches. This is large enough for Merino fleeces weighing four to six pounds; twelve inches would be sufficient for the largest coarse-wooled fleece.—These are laid on two pieecs of 3 by 5 scantling, three feet ten inches long, and the first, (A,) and third one, (B,) Fig. 1, (the bottom of the box,) are nailed; the other two boards (C. C) are fastened to B. with hinges. D. is a piece of board nailed at the end of B. to bring the sides of the box (C. C) against, which are held there by catches.

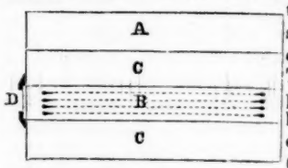


Fig. 1.

It is supported by four legs which are movable, and when stored away, occupies but little space. The twine is passed up through the bottom of the box near D., and across the bottom in grooves, so that the wool will not disturb them, and fastened by drawing them down in notches made with the saw. The dotted lines show the grooves.

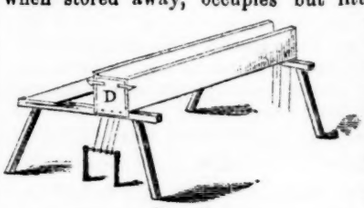


Fig. 2.

In using, the fleece is laid on in the usual way, and the sides rolled together; then the sides of the box are raised and held by the catches, (forming a box;) the fleece is then rolled so as to leave the shoulder exposed to view, and tied; the catches are then raised, and the sides of the box drop, leaving the fleece at liberty on top of the table.

The advantages of this table over those commonly used with a box at the side, are, the box at the side is in the way when rolling the fleece; it saves the trouble of working the fleece in and out of the box, besides often tearing it, and is much easier to construct, and less expensive. M. *Catherine, N. Y.*

Nutting's Fanning and Assorting Machine.

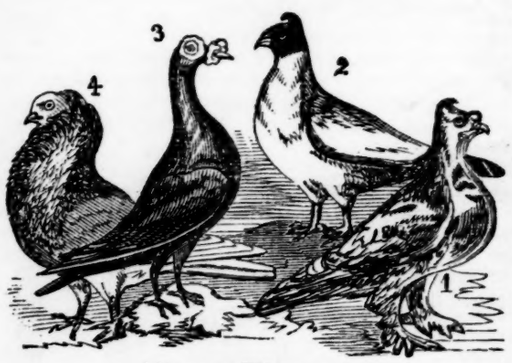
This is a remarkable invention. The common fanning mill has now been in use some forty years with but little variation or improvement in its leading features. A great advancement is now made by the introduction of a new principle, in the character of the screen employed. The old screen is simply woven wire. Nutting's screen is formed by pressing the woven wire, so as entirely to remove the feeling of roughness perceived in passing the hand over the surface. All his screens have almost the smoothness of glass —and bear the same relation to the old ones, that glazed muslin does to coarse bagging. Three important ends are thus attained. First, as the wires adhere to each other at their crossings, the meshes become immovable; and once adapted to the size of the grain, they always remain so. Secondly, as the wires cannot slide, the screens remain perfect, and their durability is almost without limit. Thirdly, and most important of all, their glassy smoothness allows the seeds to slide over them when but very slightly inclined from the level, whenever any vibratory motion is given to them. The seed never falls from above directly upon these screens, but first upon smooth metal plates, flat with the screen, in passing over which and on the screen, every oblong grain has assumed a horizontal posture. If then, these grains are *longer* than the meshes, they slide over them; if shorter, they drop through. Take, as an example, a mixture of spring wheat and oats, which is very hard to separate, as the grains are about the same size, except that the oats are the longer. A screen is used whose meshes are longer than the wheat grains, but shorter than the oats. The latter, of course, slide over and the former drop through, and the separation is perfect. Another screen separates chess from wheat in the most complete manner. Every other kind of foul stuff is cast aside in the same way; advantage being taken not only of the *size* and *weight*, but of the shape.

A most important office performed by this machine is its assortment of different sized seed of the same grain. For instance, take a bushel of wheat, the grains of which, to a casual observer, appear to be all of the same size. Pass it through the proper screens, and one drawer will be found to contain only the largest, ripest, and plumpest grains; the next drawer will afford a good specimen, but all the grains will be smaller than the first; the third will be of an inferior quality; and the fourth only the shrivelled portion. We look upon this result as likely to effect improvements of the very highest character in our agriculture. An experienced farmer declared, on witnessing its performance, "*I can now secure the wheat crop completely from the midge!*" He expected to accomplish this end by selecting the very largest grains for seed, which, of course, would be from the earliest and most perfectly ripened plants. Repeated sowings would improve the variety so as to escape the insect. All the grain we sow for seed may thus be continually improved. A new world of advancement seems thus opened before us.

There are several smaller advantages of Nutting's machine. It runs with very little noise; it is smaller than the common fanning mill; its vibrations are very short and quick, having more of a tremulous and less of a shaking quality than the common fan; the wind is shot more nearly upward against the bottoms of the screens, thus separating the chaff alike from all parts; and the quantity and direction of the wind, as well as the degree of motion in every part, are most completely controlled. The price is not greater than that of old fan mills. The inventor, RUFUS NUTTING of Randolph, Vt., spent, as we are informed, some three years of thought upon it, and the machine certainly shows that a great amount of hard thinking must have been required to perfect all its parts. With the exception of New-England, the right of which is retained by the inventor, the patent for this country is owned by WALLACE WARREN of Utica, and we unhesitatingly recommend it as no humbug.

Emerys' Illuminated Catalogue.

The new catalogue of EMERY BROTHERS of this city, is the most richly illustrated work of this kind that has yet appeared in this country. There are seventeen full pages, representing various agricultural implements and machines, most of them as seen in motion, and in a good style of wood engraving. One page alone exhibits 43 different tools. There are 30 pages more of description, explanations, &c., the result of the eminent skill and knowledge of the proprietors on these subjects, and which will be found interesting and valuable to farmers and implement makers. Its typographical execution is nearly perfect. A copy is sent by mail, by the proprietors, if we mistake not, on the receipt of six cents, and would be worth for its facts, at least ten times as much.



Fancy Pigeons.

No. 1. TRUMPETER—2. NUN—3. ENGLISH CARRIER—4. JACOBINE.

No. 1. TRUMPETER.—This bird is above the medium size of domestic pigeons, and is rather clumsily built. We have seen several theories to explain its name, but are unable to determine whether either is correct. Its note when cooing is rather coarse and heavy, but no more so than its size would indicate; hence we think its name must have been derived from some other circumstance.

The Trumpeter has a "turn-crown" like the Barb; a smaller tuft of feathers sprouts up at the root of the bill, called the "horn," which constitutes its most striking peculiarity, while its legs are very heavily feathered to the end of the toes. They are generally pure white, though some are very regularly mottled with black and white They are very prolific, excellent nurses, and are easily fattened for the table, a consideration not to be overlooked in so large a bird.

No. 2. NUN and MOREHEAD.—The Nun is one of the smallest of our pigeons, being scarce above the size of the Tumbler. It has a very neat appearance, and is one of the prettiest of the "toy" pigeons. Its head and turn-crown or tuft, flight-feathers, and tail, should be of the same whole color, and are either black, blue, red or cinnamon, while the remainder of its plumage is pure white. It derives its name from its colored head, which suggests the "veil" or "hood" worn by a class of religionists. The Nun has a small and neatly formed head and bill, and a bright pearl eye. They should not be kept in close confinement. Their appearance on the wing is very pleasing, especially a flock of them, if it contains no other birds.

The Morehead differs only from the Nun in having its wings entirely white.

No. 3. ENGLISH CARRIER.—Carrier pigeons have been employed from an early antiquity in bringing home intelligence from some place to which the birds had been previously carried. No pigeon can be taught to carry messages out, but merely to bring them back when taken from home; and even for this purpose they must be systematically trained by commencing when young. At first they are carried only a short distance, and then gradually increasing the distance at each successive flight, they are soon enabled to find their way back from great distances. The greatest authenticated distance from which a Carrier has been known to return, is six hundred miles; this was from St. Sebastian, in Spain, to Vervier. The communication to be carried is written upon fine tissue paper, and neatly rolled around the leg and secured with fine thread, thus causing little resistance to the flight of the bird.

Carriers possess far greater powers of flight and endurance than any other tribe of pigeons. All have large, powerful and rigid wings, strongly attached to the shoulders and breast. They cleave the air with almost incredible velocity; it is stated that they have been known to fly, "at from thirty to one hundred miles per hour."

The question has not been satisfactorily settled *how* the Carrier finds its way home through such long distances. It does not seem to be by instinct, nor by the possession of a large development of an organ that phrenologists call *locality*, but it is the more probable that it is simply a strong attachment to the place of its residence, and the exercise of memory, or the knowledge of the country to be traversed. This conclusion is sustained by the fact that the bird must first be trained, and that it cannot find its way back during the night nor in foggy weather.

Thus far we have spoken of Carriers in general. We shall now give a brief description of the English Carrier, which exceeds all others "in the *perfectness* to which all the *points most admired* have been brought, after long and careful breeding."

The English Carrier is next in size to the Pouter, while for gracefulness and symmetry of form it has no superior.

The head of this bird is long, narrow, and flattened at the crown; eye full, bright, and preferred fire-red, surrounded by a large naked rosette of fungus skin, larger in males than females; bill straight, thick, and very long, almost encircled by the "wattle," so called, which is a very large fungus excrescence, rising high above and across the base of the upper mandible, and is slightly developed on each side of the lower part of the bill; the neck is long, only slightly bent, small near the head, and increasing regularly in size towards the body, giving it a cone shape; the breast is largely developed; back broad across the shoulders and narrowing towards the tail.

These birds are mostly black—a few are dun, and fewer still white; while others, less esteemed, are splashed or mottled. They are very hardy, prolific, and excellent nurses.

No. 4. JACOBINE.—This is one of the smallest of all the domestic pigeons. It takes its name from a row of inverted feathers that almost surrounds the head, which fanciers have thought to resemble the "cowl or hood" worn by the Jacobine friars. The inverted feathers should continue in a "chain" down each side of the neck to the shoulders of the wings. The more compact the feathers in the chain, and the nearer they approach each other under the throat, the better. This ruffle is the leading characteristic of the bird, and when fully developed makes a very striking and attractive appearance.

The head is small; beak small and short; and a pearl eye. The head, flight-feathers and tail, should always be a clear white, but the remainder of the bird may be any whole color, as black, blue, red, and yellow, or buff; a few are mottled, and others entirely white, but they are not much prized. The blacks and yellows are decidedly the prettiest. Some think them poor breeders, but they have been very prolific with us.

The Jacobine is sometimes called Ruffled Jack, Ruffle, and Ruff. D. S. H.

Red Antwerp Raspberry.

MESSRS EDITORS—The Red Antwerp raspberry has proved a failure in the hands of the best cultivators of interior Kentucky. No winter protection that we have been able to give it, has been found sufficient to ensure a crop. Our winters are not so severe as those of New-York, but the changes of temperature are much more frequent and sudden We have too, more rain than is common with you. The growth of the cane is exceedingly vigorous, and leaves and flowers are put forth abundantly in spring. The cane appears healthy and strong, until about the time when the fruit should begin to form, when the leaves wither and dry up, and by the middle of July four-fifths of the bearing canes are dead.

Will some of your correspondents, familiar with the cultivation of this plant, furnish through your columns an explanation and a remedy? I should like to have a detailed account of your mode of protecting it in New-York. A SUBSCRIBER. *Lexington, Ky.*

We cannot account for the death of the canes at midsummer. Where this variety fails in the eastern States, it is either injured by winter, and exhibits this injury in spring; or is unproductive from unfavorable soil, the canes growing thriftily through the summer. To protect it from the effects of winter, bend over the cane, first making a small mound of a few inches, across which to bend the foot of the stems so as not to break them, and then cover them with an inch or too of soil. The labor is economized by bending the canes of two stocks towards each other, and covering both at one operation.

We have generally found the Red Antwerp unproductive on light and gravelly soils where the Fastolff and Franconia have done well. The Antwerp appears to need a deep, rich, strong and adhesive loam.

Inquiries and Answers.

HEN MANURE.—Having read several articles in your paper on the use of hen manure for corn, I have resolved to try an experiment with it myself the coming year; the result of which I will endeavor to give you at some future time. Now what I want to know is, if the manure can not be mixed with something, to obviate the necessity of covering it in the hill before the corn is dropped, thereby saving labor, for we understand the manure will injure the seed if they come in contact with each other. C. G. W. *Buskirk's Bridge.* [The hen manure may be mixed with three or four times its bulk of dried peat, dry loam, charcoal dust, or coal ashes, and applied directly in the hill. Billings' corn planter will drop it with corn, so as to leave a small portion of earth between the seed and the manure, provided the latter has been allowed to become quite dry, so as to be well pulverized before placing it in the hopper of the planter.]

SHEEP TICKS.—Will you inform me what will rid a flock of sheep of lice or ticks? JAS. RALSTON. [Tobacco water is commonly used. For 100 sheep or lambs use four or five pounds of coarse tobacco or stems, chopped fine, and boiled an hour in two or three pails of water, and then add water in the tub until half a barrel or more of the decoction is made. In dipping the animals, be careful that none of the liquid reaches the eyes and mouth, and it should be well squeezed from the wool after immersion, on a rack or board over the tub, to prevent waste. A few days after shearing, the ticks are mostly confined to the lambs, and if the latter are then dipped, it is generally sufficient. Perhaps some of our correspondents may give a better remedy.]

DITCHING PLOW.—(J. C. Cook, Columbus, Geo.) The price of this plow is $10 at the place of manufacture. It is now made by PASCHALL MORRIS of Philadelphia, who can supply all eastern and southern demands. It is no more liable to injury from roots, stones, &c., than the common plow.

ALLEN'S POTATO DIGGER.—I suppose Allen's potato digger was thoroughly tried last fall. As I think of sending for one, I wish to know how much better it is than the corn-plow and spade method. ILLINOIS. [It exceeds in value the corn plow, by throwing the potatoes all or nearly all to the surface, separating them from the earth. It will save at least three-fourths of the labor of digging by hand hoes. We think it a valuable implement.]

HAY PRESS.—I desire information in regard to best hay press. What patent is now the most approved, and what will be the cost? J. H. L. *Rome, Geo.* [Dederick's "Parallel Lever Hay Press," made in this city by LEVI DEDERICK is the one generally used in this section, and we know of no better any where. Price from $130 to $165.]

HALL'S JOURNAL OF HEALTH.—Will you please inform me where Dr. Hall's Journal of Health is published, and what are the terms? M. FRANKLIN. *Ballston Center.* [By Dr. W. W. HALL, New-York city—monthly, price $1 a year.]

HORSES RUBBING.—Is there any way to prevent horses rubbing their tails? I have been troubled a great deal, in preparing stock for fairs, by their rubbing sometimes nearly all the hair off their tails. J. D.

BLINDNESS IN HORSES.—A gentleman inquires through your columns, what can be done for his horse, which he fears is getting blind. I will give him a simple remedy, which may be of use to him and others. Take half a pint of rain-water, one gill of good rum, and one table-spoon of fine salt—mix well, and put it into the eye twice or three times a day. A friend of mine had a fine colt that was at pasture some distance from the house, where it was not often seen. It came to the barn one day with another horse, and was observed to act strangely. Upon examination, it was found to be nearly blind, in consequence of *wolf teeth.* The teeth were taken out, and a few applications of this eye-water removed the film, and it has now as bright an eye as any other horse.

A few weeks ago, one of his heifers had her eye hurt or diseased in some way, so that the whole pupil turned perfectly white. The eye-water was applied, and she can now see as well as ever. A. H. BRONSON. *Callanan's Corners.*

ANALYSIS OF MILLET.—Can you furnish your readers with an analysis of the grass and seed of Hungarian or other millet seed, so as to know whether it is a hard crop on land? F. J. HOFFMAN. *Lewiston.* [We do not find an analysis of the plant, but give the following analysis of the seed from an English work:

Albuminous compounds,	15.00
Starch, with a little gum, sugar, and woody fibre,	65.80
Oily matter,	3.60
Water,	11.20
Inorganic constituents, (Ash,)	4.40
	100.00

GRAFTING THE GRAPE.—Which is the most successful mode of grafting the grapevine? What time should the operation be performed, and which is the best time to cut the grafts? J. W. L. [The grafts should be cut early, and kept in a cool, moist place. The grafting should be delayed until after the leaves are partly expanded. The grafting may be by the cleft mode, precisely as in grafting fruit trees, at the surface of the ground. Sometimes no wax is applied, and the earth heaped up—but waxing is better.]

PROLAPSIS UTERI IN COWS.—I have a very fine, three year old, that brought her first calf about four weeks ago. She had the misfortune to cast her withers, as our farmers say, which means that the uteru turned inside out, and was extended. It was replaced with difficulty, but she has recovered and looks well now, and her calf is large and very fat. I judge she will give eighteen quarts of milk per day. I wish to inquire the best method of treatment in such a case, if there is any plan to prevent the accident, and if after it has once occured it is likely to be repeated. Any information will be thankfully received. If desired I will tell you what was done. R. R. J. *Peacedale.* [We do not know of any special treatment to prevent this accident—minute directions for treatment at the time are given in Youatt, and more general directions in Dadd's Cattle Doctor.]

CORN PLANTERS.—Do you know of a machine that will plant corn in rows, both ways, say 3½ or 4 feet distant each way, so that the corn can be plowed both ways? If so please name the machine to which you would give the preference for that purpose? In your remarks on Billing's Corn Planter, (Feb. 10,) you do not say that the machine is capable of being made to plant corn in squares with the hills of corn equi-distant every way, and be made to drop any required number of grains. I want a machine that *can be made to drop 2 or 3 grains of corn in each hill, and to drop them 3½ or 4 feet apart, east and west and north and south.* Please name the price of the machine, and where it can be had. W. TODD. [We know of no machine working *by horse power* that can be relied on to plant corn both ways. We have seen machines made for this purpose, but slight inequalities of the ground will derange the straightness of the cross-rows, unless the man who drives is constantly on the alert to re-arrange the distances. Randall & Jones' hand planter will plant in rows both ways, with considerable rapidity, the operator taking two rows at a time. Billings' machine plants only in rows one way—the number of grains may be very nearly graduated by increasing or diminishing the size of the cavities containing the grains.]

PAINTING HOUSES.—What colors should I paint a new frame house, both inside and out, in order that every thing may harmonize? The different parts are the following: The main body of the house, the windows, frames and blinds, the doors and frames, the cornice, finished with ornamental verge and eaves boards,

the veranda posts and ceiling within the veranda, the mantels, and stairs. What pigments should be used? I mean such as are most durable and will not fade. The house stands in a lawn surrounded by a few large and a few medium sized trees. If you will answer the above you will not only confer a favor upon an old subscriber, but may at the same time benefit others of your readers. A SUBSCRIBER. [There are many shades of light brown, which cannot be described by words, that afford agreeable colors for the exterior of houses. Brown letter-envelopes and other tinted paper will frequently afford good specimens of color. In houses of moderate pretensions, we would have the window frames, doors cornice, &c., all of one color. The blinds would do if green, but a light olive brown would be better. Houses of considerable pretensions may have the window frames and cornice a little darker than the rest. The interior may be either china white, or a shade of brown, lighter, warmer, and more lively than the outside, especially if grained. The *great secret to make any paint durable is first to put on a coat of white lead*—this holds all that comes after—as ochre, amber, the Brandon browns, &c., all of which by proper mixture make good browns.]

TAN-BARK.—I would like to know, (through the columns of the Cultivator) if any, in what manner tan-yard bark may be applied to land or trees to the best advantage, as I am living within a mile of a tannery and can get as much of the bark as I wish for the carting of it. If you or any of your readers can inform me of any way, in which it may be made to pay for the trouble, you will oblige the inquirer. D. D. A. [Tan-bark is of little or no value except for mulching. The best mulch is mellow, constantly cultivated earth, but in its absence tan-bark answers a good purpose, provided the diameter of the circle mulched is twice as great as the height of the tree, the distance to which the roots usually extend. Very old, well rotted tan-bark, will make heavy soil lighter.]

AYRSHIRE CATTLE.—*J. W. O., Oak Knoll, Cal.* For prices, &c., of Ayrshire cattle, address T. H. PATTERSON, Haverstraw, N. Y., or A. M. TREADWELL, 251 Pearl-st., New-York city. The cows of this breed, are generally good milkers.

CURE FOR A CRACKED HOOF.—J. S. P. inquires for a cure for cracked hoof. Let him take a chisel, and with a light blow make a cut across the top of the crack, just in the hair. This in healing, will cause the hoof to grow together; but it will take some time for the crack to grow out, as it is impossible to make the hard part of the hoof grow together. I have a question to ask about a horse. Is a surfeited horse generally considered incurable? I understand a celebrated V. S. of Bucks county, Pa., is ready to affirm that it is an incurable disease. I do not find that Youatt considers it so. J. W. LEQUEAR. *Frenchtown, N. Y.*

MIXING OF MELONS, &C.—Will melons, cucumbers, and squashes, planted in the same garden, mix so as to affect injuriously *the flavor* of melons, or does the "mixing" simply affect the *seeds*, so as to render them worthless? C. S. L. [The *seeds* only mix the first season, and the result is shown in the *fruit* the next year.

BACK VOLS. CULTIVATOR.—Have you back volumes of THE CULTIVATOR? If you have, how many vols. back? W. R. *Evanston, Ill.* [We can supply all the vols., (six) of the third series of THE CULTIVATOR—price, well bound in muslin 75 cents per vol., or $1 per vol. sent by mail, post-paid.]

MYER'S SUGAR CANE MILL.—Can you inform me in the correspondent's column of the CULTIVATOR for May, where Myer's Sugar Cane Mill can be obtained, and at what price? Also where Thomas H. Miller lives, who cracks it up so high? Also whose, in *your* opinion, is the best sugar cane mill extant, and whether horizontal or perpendicular? E. S. HOLMES. *Wilson, N. Y.* [We neither know the price, or where Myer's Sugar Cane Mill is manufactured, nor are we able to give the address of T. H. Miller. As we have had no experience in the use of sugar-cane mills, we can give no opinion as to which is the best.]

☞ LUTHER H. TUCKER, Junior Editor of the COUNTRY GENTLEMAN and THE CULTIVATOR, was a passenger on board the steamship Vanderbilt, which left New-York for Southampton and Havre on the 23d inst. His letters, which will be commenced soon after his arrival in Europe, will keep our readers informed as to his travels, until his return in September. Hon. IRA HARRIS, Mrs. HARRIS and two daughters, and Col. H. R. RATHBONE of this city, were passengers in the same ship.

Shares' Harrow.

We have given a full practical trial to *Share's harrow*, received from PEASE & EGGLESRON of this city. It proves to be an admirable implement for its intended purpose. It completely pulverizes the surface of inverted sod, effecting this at least three times as deep as the same is performed by the common harrow. Besides this, it possesses one great advantage over the common harrow as well as over the gang plow, in that it does not tear up the sod or bring up the grass. This advantage results from the peculiar form of each tooth, which at first presses the sod down like a sled-runner—then cuts it in the direction of motion—then throws the earth sideways like the mould-board of a plow. The inventor of this tooth has shown much ingenuity in thus combining in the proper order these three offices.

The form of the harrow is neat and perfect. Its three bars are folded snugly together for conveyance, and opened again for use, and firmly braced, with almost a single motion of the hand.

We tried this harrow side by side with a common, nearly new, and well made double-square or Scotch harrow. The Shares harrow pulverized more efficiently and more than twice as deep, at twice passing, as the square one at four times.

Every man who cultivates a farm of any considerable size, especially if the soil be strong or adhesive, would certainly pay for this harrow in one year by the work it would enable him to perform. Nothing can exceed it in preparing inverted sod for corn or for any other crop. It would effect an admirable preparation for the gang plow, in turning under a coat of manure on the top of inverted sod; and it would prepare fall-plowed ground for sowing oats and barley early in spring, in an efficient manner. It is one of the best inventions of late years for the farmer.

Notes for the Month.

☞ We learn that Mr. S. E. Todd, an occasional contributor to our columns, has in preparation a work entitled the "Young Farmer's Manual," detailing the various manipulations of the farm, and including a chapter on Fences, with illustrations of nearly every style of fence, and plain and intelligible instructions to aid the tyro in agriculture in building them in a workmanlike and economical manner. Mr T. requests us to add that those who have illustrations of any kind or style of fence or fence posts, patented or not, will oblige by forwarding descriptions, &c., to him at Lake Ridge, Tompkins Co., N. Y., and if they are deemed worthy of a place in that chapter, with the consent of the proprietors, the cuts and descriptions will be inserted in it.

Buildings for County Society Fair Grounds.—In reply to an inquiry as to the best style of erections for a society proposing to build, we may refer to the description published on page 221 of our last vol., (Co. Gent., Oct. 7, 1858,) of the Amphitheater of the Ontario County Society, near Canandaigua. We do not know its cost, but are inclined to think that better satisfaction is thus given than from any other kind of structure we have ever seen; and, during our visit last fall at the Fair Ground in question, we had ample proof that in case of storms the protection thus afforded to the health and the wearing apparel of visitors, may be of greater pecuniary value in a single year than the first cost of the building itself. We presume our correspondent by addressing the public-spirited Secretary of the Ontario society at Canandaigua, Gideon Granger, Esq., will obtain at once every detail he can desire.

The Next California State Fair.—The citizens of Sacramento City, where the fair of the California State Ag. Society is to be held this fall, and those of the county, seem to be in earnest about the matter. They have already obtained authority from the Legislature to tax the whole people of the county one-quarter of one per cent.; by this means, the sum of $30,000 will be raised for Public Buildings and Fair grounds. At a meeting of the Managers of the Society, held at Sacramento, Feb. 25, it was resolved that in addition to the $5,000 which the State appropriates for the payment of premiums, and which it was decided to pay in all cases in cash, there should also be offered by the Society $7,000 from its own funds, to be paid either in plate, medals, diplomas, books, &c, as should be deemed most advisable. All this looks as though the people of our western coast were likely to start with a better idea of the importance of Agriculture to the community, than has even yet grown up in some of the oldest parts of the Confederacy. There is now enough improved stock, cultivated fruit, good tillage, and public-spirited enterprise in California, to make a most interesting Agricultural Exhibition this fall, and one, the fruits of which will have no inconsiderable bearing upon the future prosperity of the State.

Bees for Oregon.—We understand that Mr. Geo. W. Stephens from California, has just passed through this city, with 50 stocks of Bees, destined for Oregon. They were furnished by Mr. Quinby of St. Johnsville, N. Y. We think he could hardly have made a selection in a better quarter.

More Short-Horns at Albany.—Mr. Wm. Hurst has purchased of Samuel Thorne, Esq., the roan heifer "Minna," got by "Duke of Gloster," (11382,) out of imp. "Minerva 2d," bred by Mr. Slade, Kemiral House, England. Also the noted cow "Bloom," imported by Col. Lewis G. Morris, and illustrated in his Catalogue for 1856, bred by Mr. Fowle, Northallerton, Eng., and winner of the first prize at the New-York State Show in 1854. Mr. Hurst has moreover purchased of the Rev. Dr. Beman of Troy, the roan cow "Bellflower 2d," bred by Geo. Vail, Esq., and her young bull "Beman Duke." Bellflower 2d, was got by Mr. Vail's Meteor 104, (11811,) out of Bellflower, bred by the late General Stephen Van Rensselaer.

☞ The call for a convention of Cattle Breeders which we recently published, drew together a number of gentlemen interested in the various breeds, at Hartford last week, who organized under the Presidency of John T. Norton, Esq., Secretary, M. C. Weld. We learn from the *Homestead* that a constitution was formed of an "*Association of Breeders of Thorough-bred Neat Stock*," which received the signatures of 33 breeders—1 each from Vermont and New-York, 11 from Massachusetts, and the remainder from Connecticut. Under this constitution the following officers were elected for one year:

President—John T. Norton, Farmington.

Vice-Presidents—Paoli Lathrop, South Hadley, Mass., (Short-Horns;) Lemuel Hurlbut, Winchester Center, Ct., (Devons;) John Brooks, Jr., Princeton, Mass., (Ayrshires;) Thos. Motley, Jr., Jamaica Plains, Mass., (Alderneys;) Ambrose Bowen, Oak Grove, Medina, N. Y., (Herefords.)

Secretary and Treasurer—Henry A. Dyer, Hartford.

Among the measures taken before adjournment, a "committee on pedigrees" was appointed, and it was resolved to issue circulars asking the co-operation of breeders; to direct the preparation of a scale of points for each breed by the committee on pedigrees; to hold the next annual meeting at Springfield, Mass., next March, and to ask the aid and support of State Ag. Societies in furtherance of the objects of the association.

Draining in Ontario Co.—At its winter meeting the Ontario Co. Ag. Society awarded two premiums of $25 and $15, for the greatest number of rods of tile or stone drains put down during the year 1858. The first was awarded to Mr. Wm. Johnson of Geneva, who put down 604 rods drains, of two inch tile, at a cost of 31¼ cents per rod, and 144 rods of drains of six inch tile, costing 70 cents per rod. These drains were put in nine and a half acres of land. The second, to Mr. Thomas Tufts of Gorham, who put down 500 rods—2000 tile were 1¼ inch, the balance of tile were 2 inch. There were some few rods of stone drain. The tile drain cost 28 cents per rod, and the stone drains 37½ cents per rod.

☞ Darlington's American Weeds and Useful Plants," recently published by A. O. Moore & Co., has been widely noticed as a "Second Edition" of the "Agricultural Botany" of the same author. This indeed it is; but some prominence should be also given to the fact that it is not, like many "new editions," merely a new impression from old plates, but that it has been thoroughly revised, enlarged, and put wholly in a new form—an undertaking which as it comprises over 450 compact pages, and nearly 300 illustrations, (all new,) reflects much credit upon the publishers, and aside from the high intrinsic merits of the book, should go far to attract for it a generous patronage from the Agricultural public. [Copies for sale at this office—price, postpaid, $1.50.]

☞ The American Veterinary Journal, by Dr. Dadd, Boston, has, we regret to learn, been discontinued for want of competent support. Dr. D. says: "The only explanation I have to offer is, that in consequence of remissness on the part of subscribers for the past two two years, my pocket-book is the seat of a very severe attack of dyspepsia, which threatens to confine me and my family to a diet of shorts."

"Honey Blade Grass."—A correspondent in Missouri informs us that the seed advertised as the "Hungarian Honey Blade Grass," was purchased by its present proprietors last fall, in St. Louis, at *fifty cents* per bushel—the same seed which they now advertise, put up in bags stamped with the Hungarian coat of arms, at $9 per bushel. Those of our readers who think this only a reasonable profit, will send on their orders at once; but those who wish to make a trial of it, and do not want the *pictured bags*, can get it at most of the seed stores at $3 per bushel.

☞ Under the title of "The Quarterly Journal of Agriculture," the management of the U. S. Ag. Society have determined to publish their proceedings once in 3 months, instead of in an annual volume or a "monthly bulletin" as heretofore. In view of this object, we think the publication might have been less open to criticism, if the title chosen was somewhat less ambitious; as the quarterly journal of the *United States Ag Society* it is an interesting record of what we all want to know, but if comparison is invited with other journals of *Agriculture*, we must judge of it from a very different point of view. Without seeming captious, may we also suggest to the proof reader to consult a lexicon as to the proper spelling of Agricultur*a*lists and Horticultur*a*lists—words repeated in running titles and otherwise on nearly every page, and always with this abnormal number of syllables. The number of the "Journal" for April, now before us, contains 28 pages of the Proceedings at the Society's last Annual Meeting; 11 of miscellaneous matter; then an interesting, although of course concise, resumé of the State Ag. Exhibitions for 1858, and mention of most local and county ones, occupying about 26 pages; and concluding with 15 more, taken up with prospectus, the affairs of the Society, extracts, notes, &c., of considerable variety.

PERSONAL—A BRITISH VIEW OF AMERICAN AGRICULTURE.—Hon. RICHARD COBDEN, distinguished in his own country and abroad for his strenuous and successful advocacy of the Corn-Law Repeal, as well as other reforms, and who has been traveling for several months in the United States, was the guest for some days last week of Hon. BRADFORD R. WOOD of this city. Mr. C., as might be expected, has taken a deep interest in our agriculture; for his views as a statesman had not only lead him to a thorough study of this science in all its bearings, in Great Britain, but his individual tastes have likewise induced him to undertake the actual practice of farming himself. He expressed his surprise both at the natural fertility of our soils and at the negligence with which we too often regard its preservation. He appears to have been especially struck with the vast expanse of productive territory which Illinois contains, and spoke in astonishment of having travelled by rail *in a single State, seven hundred miles, of which probably six hundred and fifty* were fitted perfectly for plow lands. The resulting problem, he remarked, was one of difficult solution to him, and vital interest to ourselves—how is it that our farms generally average the scant yield of 15 bushels of wheat per acre, while our older States are already complaining of exhaustion, and, on the contrary, England brings comparatively in fertile districts up to a yield of 40 bushels per acre, and nowhere admits the idea of anything approximating to exhaustion? We are under obligations to Mr. C. for some information as to agriculture in his own land, and for letters which will enable us we hope, during the present season, to see, and perhaps imperfectly explain some of the causes of the vast difference to which he so earnestly alluded.

☞ N. LONGWORTH, the veteran of Cincinnati, was recently chosen President of the "Pioneer Association" of that city, and we are indebted to him for copies of the Address delivered on the occasion. It is full of incidents, and illustrates not less the rapid growth of the place, and the good fortune that has attended many events in the author's history, not at the time considered to promise it,—than it does the store of anecdote gathered in so long a life, especially when it has witnessed all the stages of progress from the log cabin of a lonely settler, to the crowded streets where citizens are numbered by tens and hundreds of thousands.

SERIOUS LOSS.—We have to record a serious loss to private enterprise and to the State of Virginia, in noticing the misfortunes that befel a vessel containing a fine Cleveland bay stallion, purchased at an expense of upwards of $3,000 by Dr. JOHN R. WOODS of Albemarle. The ship put into St. Thomas in distress, where she was compelled to remain for repairs. The cause of the death of the horse, as well as the fate of a magnificent buck, also the property of Dr. W., was not yet known at the date (Ap. 10,) of a private letter received from him, to which we are indebted for these facts, but the vessel was expected soon at Baltimore, when the events of the voyage would be at once ascertained.

☞ We noticed last week the purchase by JOHN P. WELSH, Esq., of Oregon, of a Short-Horn bull from Mr. THORNE, for exportation to that State. We now learn that Mr. W. took in the same steamer with the above, the thorough-bred mare, "Mary Chilton," by imported Glencoe; the South-Down buck No. 220, 3 yrs. old, bred by Jonas Webb, and imported by Mr. Thomas Betts; a Hampshire buck, 2 yrs. old, bred by Lord Portsmouth; two South-Down lambs, bred by R. A. Alexander, Esq., of Woodburn, Woodford Co., Ky.; three New-Oxfordshire lambs, bred by John T. Andrew, West Cornwall, Conn., and one shepherd bitch.

THE ONE EYE POTATO SYSTEM. — *T E J.*, East Windsor Hill, Ct., reports in the *Homestead* that having read in his CULTIVATOR last year, the articles of our correspondent GERALD HOWATT on Potato Culture; he followed Mr. H.'s directions substantially "till he came to the harrowing," of which *T. E J* was a little afraid. He therefore substituted for that implement, what "might be called a bush harrow," made by inserting the butts of white birch saplings, untrimmed, into a joist four or five feet in length, and then nailing strongly to this joist, some four inches apart, narrow strips of boards sharpened at one end like a flat picket, and projecting down towards the ground four inches. "This answered the purpose admirably"—a weight being put on to it, the first time using it, in front nearly over the teeth, "which caused it to level the ground nicely," and the second time it was used, over the middle of the brush, nearly lifting the teeth out of the ground, sweeping off the weeds, while the potatoes and their sprouts, then just beginning to appear, were "unmolested." This was on land free from stones; the crop was a good one, and as the sprouts came up on clean land, the labor of subsequent cultivation was reduced one half, and enough saved by the process to pay the subscription price of several agricultural papers.

CONTINUANCE IN GOOD WORKS.—We are glad to know that the customary appropriation of $1,000, for the continuance of Dr. FITCH'S most valuable Entomological investigations, has again passed both branches of the Legislature of this State.

FINE LETTUCE.—Mr. ROESSLE of the Delavan House, who provides for the tables of that extensive establishment from his own vegetable-farm, will accept our thanks for a supply of the finest lettuce we have yet seen, the leaves measuring over twelve inches in length, which is doing tolerably well for this latitude about the 1st of April.

BUCKEYE POTATOES.—For samples of this variety, which may be seen at this office, we are indebted to Mr. E. WANZER of Greenbush. They are somewhat above the average size, although varying considerably both in this respect and in shape.

WINDHAM CO. (CT.) AG. SOCIETY.—The next exhibition of this Society is to be held at Brooklyn, Sept. 21, 22. Its officers are:

President—APOLLO RICHMOND of Brooklyn.
Vice-Presidents—Albert Day of Brooklyn, John Paine of Woodstock, William Bennett, Jr., of Hampton.
Recording Secretary—Jas. B. Whitcomb of Brooklyn.
Corresponding Secretary—Chas. Osgood of Abington.
Treasurer—Edwin Newbury of Brooklyn.

CLOVER ON BARLEY.—In England, according to the editor of the *Genesee Farmer*, nearly all the clover is sown with barley. The land is made as mellow as possible, and the clover seed is generally sown after the barley has been harrowed in and the work completed, except rolling, which is done after the barley is up. "Barley," it is added, "is undoubtedly the best spring crop for this purpose."

Shrinkage of Corn in Drying.—A member of an Eastern Town Club, took 100 lbs. of ears of King Philip corn as husked the middle of October, when the stalks were quite dead and the ears dry and hard, and laid it in a box to dry until the 15th of Jan. It then weighed 84¼ lbs., and the shelled corn, 70½ lbs., and measured 1 bush. 4¾ qts. This corn was then laid on a sheet to dry in a warm chamber, until Feb. 4th, when it was winnowed, weighed and measured, with the following result: weight, 66 lbs.; measure, one bushel and two quarts, showing a shrinkage of 34 per cent. from the ear at husking time, to dry shelled corn. We condense from the *N. E Farmer*.

Suckering Corn—Growing Pumpkins.—At a recent meeting of the Skaneateles Farmer's Club, some remarks were made on this subject, and reported in the *Democrat*. Mr. Gaylord, on a trial of the experiment, found the unsuckered corn the best. H. Ellery had tried it, and thought it did not pay. C. Moses had been successful in growing good corn and pumpkins together. He was particular in selecting seed from pumpkins which had large crowns.

Osier Willow—The Right Kind.—In regard to planting osiers for market, G. W. Thomas of Fulton, N. Y., says in the *Rural New Yorker*, that he planted three acres three years ago, two to the *Salix purpurea*, (or *S. viminalis* of some writers,) and one to the *Salix triandra*. The first is "every time, and under all conditions, *good*." The latter is worthless, or worse, "being short, scraggy, and every year a little more so."

Clearing off Rocks.—A writer in the *N. E. Farmer*, after blasting, breaking and burying rocks until his patience was exhausted, says he tried fire and water. He collected a good quanity of brush, leaves, and any combustible rubbish, and kept up a brisk fire for hour, about a rock weighing three or four tons. He then dashed on a few buckets of cold water and the rock fell in fragments.

Corn Fodder for Wintering Horses.—It is stated in the *Genesee Farmer*, that Jos. Wright of Seneca Co., has kept fifty horses the past winter in fine order, on corn-stalks, very finely cut by steam power, and a little Indian meal sprinkled over them, after moistening the mass. He thinks this a saving of one-half over hay and oats.

Profitable Sheep.—I will give you a statement of a little flock of sheep that I have raised in two years. I bought three ewes, two years ago this spring—two of them had four ewe lambs; and last year six of them had eight ewe lambs, making in all fifteen ewes; they have never had a buck lamb. I consider it a pretty good increase. I paid $14 for the first purchase, and the wool has about paid for keep, and I have just sold the flock for $75. J. Shattuck.

Unripe Corn for Seed.—A writer in the *Prairie Farmer*, reporting the transactions of the Farmers' Club, states "that corn gathered before fully ripened, and hung up to dry in the house, germinated sooner, and was more forward through the season, than if left to ripen in the field." Have any of our readers made trials throwing light on this point?

Delaware Co. Ag. Society.

President—S F. Miller, Franklin.

Vice Presidents—Wm. D. Bowie, Andes; Porter Frisbee, Meredith; J. B. Yendes, Delhi; Lyman Lawson, Kortright; Elijah Roe, Sidney; Eli B. Hopkins, Franklin; Ezra Osterhout, Davenport; Daniel Andrews, Stamford; T. S. Hoyt, Walton, and C. Gibbs, Harpersfield.

Rec. Secretary—C B. Wade, Walton.

Cor. Secretary—Z. H. Sloat, Meredith.

Treasurer—Hiram Olmstead, Walton.

The next Annual Fair of this Society will be held in the village of Bloomville, on Wednesday and Thursday, the 14th and 15th of September, 1859. x.

Pumpkins Among Corn.—Should corn and pumpkins be planted together? We do not remember to have seen any very accurate test of this question. One trial which is stated to have been made, resulted in forty loads of pumpkins on one-half the field, against two bushels increase in the corn of the other half, planted without them. If neither crop grew very stout, perhaps such would be the usual result.

Draining Plow.—The Associate Editor is unable to answer the numerous private letters of inquiry in relation to this plow. It is believed the advertisement, and the editorial account of the experiments with it published last autumn, give all the information necessary, and to these inquirers are referred. Much more expense has been incurred in experimenting, than is likely to be reimbursed by the sale of plows, consequently the advertised terms cannot be varied.

Remedy for the Onion Maggot.—Much loss has been experienced among onion growers from the destruction of the young plants by the maggot. Mr. Emerson of Hollis, states in the *N. E Farmer*, that good guano applied on the rows by sprinkling on with the hand, so as to nearly cover the little onions, is an effectual remedy. "The guano must be good, and put on with a liberal hand"—his onions, he adds, do finely under the treatment.

Steuben Co. Fair.—Our county fair is appointed for the 28th, 29th and 30th Sept. Robt. M. Lyon, *Sec'y*.

Grafting Knives.

Messrs. Editors—The accompanying drawings of grafting knives I wish you to give in your journal if you see fit to do so. There is a great gain in using a tool best adapted to its work, and I think those unacquainted with fig. 2, will, after an explanation of its advantages, desire to procure it. Fig. 1 is taken from

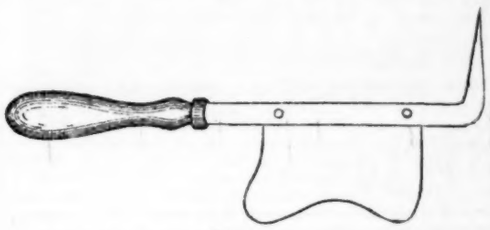


Fig. 1.

April no. of the American Agriculturist. Fig. 2 is the knife used by most western grafters. I have handled both. The wedge point, *a*, should be made of steel, well tempered and not of iron, (as was the one I purchased, and which gave me much trouble by bending,) for the point, in pressing open the slit just before placing the graft, receives a considerable strain.

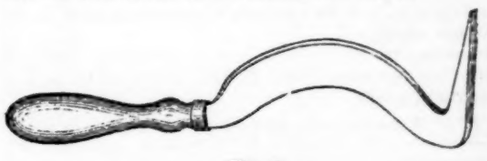


Fig. 2.

No. 1 would be as good as no. 2, if you could always be in a favorable position to handle it; but limbs are sometimes very difficult to get at. In such cases, no 2, from its form, is preferable, and a man can in a day accomplish more with it, and with greater ease, for in driving in the wedge point *a*, there is no projecting knife blade in the way of your mallet, (which should be a round piece of hard wood,) to interfere with the direction of the blow, or worse still, in some awkward positions, there is a risk of hitting your hand against the blade. I mention this feelingly. No 2 is frequently made too thick in the blade, but when properly made is a very satisfactory tool to work with, much more so than the other, according to my experience.

E. P.

Contents of this Number.